



College AND UNIVERSITY Business

**JUNE 1947: Faculty Contracts ★ Well Planned Service
Building ★ Investment Principles ★ Furnishing Student Rooms
★ Elm Diseases ★ Building a Catalog File ★ Charitable Trusts**

GUEST EDITORIAL

Junior College Picks Up Speed

THE RAPID GROWTH OF THE JUNIOR COLLEGE from 1900 to the present time has been stimulated by the general upswing in educational interest at all levels in the United States. In 1900 there were approximately 500,000 high school pupils and graduates numbering about 61,000. Now there are more than 6,500,000 with graduating classes which, if combined, would make a procession of more than 1,500,000 young men and women. Resident college enrollments likewise jumped off at the turn of the century with less than 240,000 and climbed almost steadily, except for war recessions, to the present figures of more than 2,000,000.

Full account is naturally taken of the influence of the G.I. Bill of Rights on college enrollments. Leaving out of consideration billions of dollars of government money now creating an unprecedented bulge in college attendance, there would have been a great increase following the war, even without the benefits of the G. I. Bill of Rights. No one knows what the future will be, but all reliable evidence and reason indicate that an expansion of college facilities for at least 3,000,000 students within the next ten years would represent a conservative program.

From the general background of the educational picture painted in the foregoing paragraphs, and for several unique reasons, the junior colleges have shown an astounding growth in this present century. Starting with less than 1000 students in 1900, the junior colleges now enroll 400,000. Why?

First, many parents and some educators in senior institutions were not satisfied with the results attained by students during the first two years of college. The number of young people who either failed or dropped out before the beginning of the junior year convinced an increasingly large group of parents and educators that there was a better way to handle the problems of higher education for many students during the freshman

and sophomore years. The records junior college students have made in upper division studies are now sound evidence in support of the previously stated general assumption.

Second, wherever junior colleges have grown rapidly, as in California, Texas and Mississippi, there have been sympathetic understanding of the problem and assistance from the universities.

Third, the developing age of technology has created a vast number of occupations requiring more than high school education but less than four years of college. The junior college became aware of the needs of the noncommissioned officers of modern business, industry and the professions. Hence, so-called terminal curriculums of more than 100 kinds have been organized to provide both the "know how" and the "know why" in two years of formal college education. Fourth, considerable numbers of students, especially women, wanted to complete a fairly well-rounded general education at the junior college level and be graduated with an associate degree. Fifth, more than 600 junior colleges have brought opportunities for attendance to thousands of young people who can live at home. With free tuition, as is the case in some states, expenses are reduced to the minimum. Also, short courses for specific training in various fields of business and industry have become increasingly popular, even for college graduates. Adult education, both general and vocational, has moved rapidly ahead in sections of the nation where the "community college" idea has taken root.

With few exceptions these reasons for the growth of the junior college are still valid and more reasons could be given. They show, however, that the movement is based on deep human needs, that the people throughout the country are becoming aware of the unique functions of the junior college in meeting these needs. As long as this situation prevails, the junior colleges are destined to grow with increasing momentum.—
JESSE P. BOGUE, *executive secretary, American Association of Junior Colleges.*



College AND UNIVERSITY Business

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Among the Authors



JOHN O. GROSS

JOHN O. GROSS, secretary of the department of educational institutions of the board of education of the Methodist Church, discusses the technic of cooperative relationships among Methodist supported institutions. Author and editor, he was formerly president of Union College and of Simpson College. . . . HENRY B. ABBETT, purchasing agent and assistant controller of Purdue University, started his university purchasing career at Colorado in 1921. He was an army captain in World War I and, for two years following the war, worked for the Fahardo Sugar Company in Puerto Rico as assistant superintendent of fabrication. . . . A. F. CONRAD, superintendent of grounds at Miami University, describes from firsthand experience the effort on his campus to control elm loss. His early career with the U. S. Forest Service has been followed by twelve years of park and recreational work and ten years in his present position.



C. A. LIVINGSTON

CLARENCE A. LIVINGSTON, general superintendent of buildings and grounds at the University of Rochester, has been responsible for the work on this eastern campus since 1922. Prior to his entry into university work, he was associated with several architectural firms in Rochester and Chicago. . . . RUTH ELLIOTT HOUSTON, professor of health education and director of college gymnasium at New York State College for Teachers, has achieved the double distinction of being a leader in the field and the most traveled author we have presented in these columns. Author of several books on physical education, she has done graduate work at Harvard, Oberlin, Michigan, California and Colorado and in Sweden and England. Her travel itinerary actually reveals 52 countries visited in Europe, the Orient and the Americas! She is famous for waffles, based upon an undisclosed recipe handed down from her grandmother. Though travel is her main hobby, she has an affinity for water sports, especially sailing. Shooting with a camera also intrigues her.



ROY W. SNYDER

ROY W. SNYDER, professor of animal husbandry and extension meat specialist at Texas A & M College, describes the work of the meat killing department at that institution. On the side, he admits that his hobbies are tropical fish and cooking. . . . ROSALIE S. GODFREY, business director of residence halls and associate professor of home economics at the University of Texas, began her career as a junior high school teacher. She successively was appointed scientific assistant in home economics at the Bureau of Chemistry and Office of Home Economics in Washington, D. C., director of food service at a Washington hotel and to posts at the universities of Missouri and Texas. . . . WILLIAM J. TRENT Jr., executive director of the United Negro College Fund, Inc., describes the joint effort being made by Negro colleges to finance themselves. He has had extensive work in government and was at one time adviser on Negro affairs to Secretary H. Ickes of the Department of Interior.

Looking Forward

Conventionally Speaking

NOW THAT THE SPRING RASH OF CONVENTIONS has come and gone, what have they meant to the delegates? We trust, more than the conventional headache!

Where many conventions fall down in their programming is in failure to provide for small informal discussions of pertinent and mutual problems. Many a convention delegate asserts that the chief value of a meeting to him is the opportunity to chat with other delegates in the hotel coffee shop. If that is true, why don't program chairmen recognize the importance of such arrangements for interchange of experience? Instead, many times delegates suffer for inordinately long periods listening to formal addresses, some of them poorly prepared or delivered. Finally, mind and body rebel under the strain, and the delegates find their way to the nearest bistro.

Conventions can be a real aid, but intelligent programming calls for not exhausting the delegate in the process.

Keeping Up With the Joneses

ONE OF THE THINGS THAT SERVES TO MAKE higher education expensive is the reluctance of college and university educators to confine themselves to the limitations inherent in their own institutions.

President Ernest C. Colwell of the University of Chicago, in addressing the annual meeting of the Central Association of College and University Business officers, decried the tendency of institutions senselessly to compete with one another in educational or research services.

For example, if College A builds a betatron, nothing save a betatron will suffice for College B. Little thought is given as to whether the institution can afford it or whether it is properly staffed to use and maintain the instrument. This reckless tendency, often encouraged by alumni, administration and trustees, often accomplishes nothing more than an increase in the cost of education.

Why is it that colleges feel that they must constantly add departments and fields of study for which they are inadequately financed, equipped or staffed? It is this college version of "keeping up with the Joneses" that is helping force the costs of higher education upward.

It would be better for higher education, and less expensive, if colleges would recognize their own areas of interest and service and confine their energies to doing a job superlatively well, rather than trying to do everything moderately well. A liberal arts college should remain a liberal arts college and not attempt to compete with institutions in professional and technical fields. Cooperation rather than competition could materially reduce the cost of higher education. Avoiding ridiculous and expensive competition will give the taxpayer a needed break.

Escalator Clauses Going Out

DURING THE WAR AND IMMEDIATE POSTWAR period there has been a general tendency on the part of manufacturers and vendors to insist on the inclusion of escalator clauses in all purchasing contracts. The buyer, desperately needing merchandise, was left with no alternative and had to accept such terms. With slow deliveries and rising costs, it was a common occurrence to have to pay a higher price on delivery than was originally quoted.

Shrewd observers of purchasing trends have noted in recent months that many suppliers are eliminating the escalator clauses in their contracts with buyers. In order to accelerate this return to equitable business practice, college and university purchasing agents and business managers are urged to insist from here on out on contracts that do not include escalator clauses.

A determined stand on this matter of purchasing policy will do a great deal to bring vendors and suppliers to a position of firm prices. It should mean a genuine saving in the next six months as institutions replenish their stocks for the new academic year.

CHICAGO FACULTY CONTRACTS

REUBEN FRODIN

Assistant to the President
University of Chicago



A FACULTY "FULL TIME APPOINTMENT" program has been in operation at the University of Chicago since 1944.

A full time appointment is made for each new faculty appointee with the rank of assistant professor, associate professor or professor (including those promoted from the rank of instructor to assistant professor). The university statute authorizing this type of appointment requires that all money (other than salary from the university) earned by the professor be turned over to the university. Such earnings include royalties on books, lecture honorariums and consultant fees.

The appointment calls for twelve months' employment, with a minimum of four weeks' vacation. The assignment of the professor to research, writing, travel or rest is made in any portion of the year that suits the requirements of the university and the needs and interests of the professor. A member of the faculty can still participate in any activity he wishes, but certain kinds of endeavor, such as services on the University of Chicago Round Table or for the Encyclopaedia Britannica, public lectures or consulting work with industry, may now be included in the approved schedule of services in a given quarter or year as part of his regular duties covered by the faculty member's salary from the university.

Full time appointment does not establish a universal rule of four quarters' residence and teaching instead of the traditional three quarters. The administration could ask for this service but it operates on the principle that the faculty is of such quality that many do research throughout the year and should not teach in four quarters.

What is intended by full time annual appointment is flexibility in the assignment of faculty duties so that a member of the faculty in one or more quarters can be assigned to teaching, to research, to individual activities of a special nature, to traveling, to a visiting professorship elsewhere or to some similar project.

The adoption of the full time appointment arrangement required certain salary adjustments. One change, partially to be accounted for by the full time appointment program, has been the raising of the median salary of assistant professors to \$4500 a year. In new appointments above the rank of assistant professor, it has been the policy of the central administration to approve a salary slightly higher than the former amount to compensate for the relinquishing of outside earnings.

The policy of the central administration with regard to the members of the faculty who were on three quarter appointments may be summarized as follows: (1) no pressure whatever was exerted by the administration upon members of the staff to change to the new type of contract; (2) members of the faculty were given the privilege of requesting transfer to the new contract if they so desired; (3) these petitions have been granted on a quota basis, with preference given first to assistant professors; second, to associate professors, and last, to full professors.

As of July 1, 1947, the beginning of the fourth year of this new arrangement, 387 individuals will be on full time appointment, out of approxi-

mately 525 who will be eligible. In addition, there are 50 members of the faculty of the school of medicine on comparable appointments, a type of appointment that has been used in the school since it was organized in 1927. Administrative officers have for many years been on full time appointment.

This new arrangement, in the opinion of the central administration and the board of trustees, had the merit (1) of improving faculty salaries where there was greatest need; (2) of contributing to the morale of the faculty and its sense of community; (3) of contributing to the more rapid development of scholars and teachers, and (4) of promising the ultimate solution of a troublesome administrative problem in regard to the faculty, namely, the interruption of university work for the sake of outside earnings.

MERITS OF PROGRAM

A recent (1946) study indicates that in 16 member institutions of the Association of American Universities the average salary for instructors was \$2312; the average salary for assistant professors, \$3119; the average salary for associate professors, \$3833, and the average salary for professors, \$5259. Considerations in increasing faculty salaries, of course, include recruitment and retention of personnel, housing and the cost of living, as well as outside earning activities of the faculty. All these matters were and are receiving attention at Chicago. The full time appointment arrangement was just one method of tackling the problem. The increase in salaries at Chicago, as shown by the average and median salary levels, has not been too discouraging, particularly when one remembers that private in-

From Proceedings of the Institute for Administrative Officers of Higher Institutions, 1946, by permission of the University of Chicago Press.

restrict outside income

At this progressive Midwest university, the "full time appointment" program offers one solution to the problem of outside work. There is only one basic decision to make: "Is the work important?"

stitutions, at least, have to look at the income side of the ledger.

The central administration believes that one of the merits of the program is to make a contribution to the morale of the faculty by enlarging its sense of community. The administration feels that, particularly in times of economic stress and world disorganization, there should be as much separation as possible of the problem of earning a living from the act of doing worthwhile things in a troubled society. The administration believes that, in a modest way, the university's program with regard to full time appointments is a contribution toward this ideal.

The third point, that the program was a means of contributing to the more rapid development of teachers and scholars, is related to salary and morale. If you do something about the salary of faculty members, you give them a means by which they can determine whether an activity is worth doing. You are providing them with the means by which they can pursue the real objectives of the university. Providing these means for younger members of the faculty community is perhaps the direct way of building a university and of keeping it strong.

With regard to the fourth point, that the program seems to provide the means for solving the troublesome administrative problem of making fair decisions about interruptions of university work for the sake of an individual's outside earnings, we cite the experience of that part of the university which has been on the full time appointment basis since 1927, the school of medicine.

When the university was in the process of organizing the new project

in medical education and research, based on the University Clinics, the board of trustees faced the problem of the special status of faculty members in its most difficult form. The tradition was that medical education was the concern of practicing physicians who spent part of their time teaching. In the development of its medical school, the university wanted to make education and research full time interests of the staff. In the face of predictions that able men would not give up the financial advantages of private practice, the board of trustees decided in 1927 to put the medical project on a full time basis.

The arrangement has worked with distinguished success for the last nineteen years; the members of the staff would rather close the clinics than change the policy. The action making all new appointments in the university on a full service basis was, therefore, simply an extension of a program that has been in productive operation for a long period.

CRITICISMS OF PROGRAM

In discussing the practical operation of the full time appointment at Chicago, two topics should be treated: scope and machinery. The general scope of activities from which the monetary return would accrue to the university has been referred to previously. The principal outside activities are (1) the writing of books, pamphlets and articles; (2) consulting services to educational institutions, business and industrial firms and governmental agencies; (3) lectures (platform and radio); (4) property management, and (5) works of art. It should be mentioned here that prize awards, whether they be great like the

Nobel or small like the John Doe, are not considered as income and hence are not turned over to the university.

The royalties on books written during the period of appointment of the author accrue to the university. Royalties on works written before accepting the contract accrue to the individual. Royalties on books started before such appointment and completed during the period would be subject to negotiation.

I include "works of art" because most hypothetical questions about the full time appointment arrangement involve "works of art"—however, that phrase may be stretched.

"Suppose," a faculty member asks, "that I write a best selling detective story during the evenings or on my month's vacation in Mexico." The answer of the administration is that the income accrues to the university.

"Suppose," says a professor of physiology, "that I paint a landscape and happen to sell it." The answer is the same.

If these decisions seem at all capricious, remember that the situations do not happen often in a university and that any attempt to set up a long list of exceptions would mean repeated requests for exceptions on one ground or another. Remember, also, that in both cases the university was paying the individual as well as it could for his services in one or more capacities. If one excepted the physiology-painter, would one except a professor of art who spent much of his time painting? Would one draw the line between a professor of English who wrote a detective story and a New Testament scholar who wrote one? In the last analysis, it is the acceptance of the philosophy behind the entire full time appointment pro-

gram that governs each decision. One criticism of the plan was voiced by an alumnus of the university in industry, who stated that the removal of the profit motive from outside activity of a member of the faculty was unrealistic. He argued that, if a member of the faculty did not receive the compensations or personal benefit as a result of engaging in an outside activity, there would be a widening gap between educational institutions and business and industry. He felt that the new type of appointment would, therefore, act to reduce the staff's industrial experience which he felt was in the best interests of the university.

Another critic's view of the arrangement stated that it would eliminate the incentive for a member of the faculty of the University of Chicago on full time appointment to go to another institution as a visiting professor. Neither situation has developed. In the case of industrial activity, it is becoming increasingly apparent that the problems of consultation are becoming so complex that formal arrangements are desirable on all sides—the corporation's, the university's and the individual's.

There is no question in the minds of the administration of the university that outside activities may help a professor become a better teacher or researcher. Similarly, a professor who expresses his ideas or knowledge by lecturing often serves society. The difficulty, as has already been suggested, is deciding whether the professor is engaged in outside work to advance his competency or lecturing so that others may benefit by his ideas or is doing such work solely for purposes of adding to his income. The board of trustees, in adopting the full time appointment arrangement, felt that the only practical way to make decisions of this kind was to provide that money from such activities should be turned over to the university.

When the question is whether a professor will go to another university as a visiting professor, whether he will write a new social science textbook for high schools, whether he will give a commencement speech at a suburban high school, whether he will serve as a consultant to the United States Treasury Department for a month, the decision to be made is basically always the same.

Depending on the individual, the following questions may be taken into consideration appropriately: "Will

outside activities contribute to my professional career? Will the activity serve the university, the profession in which I am engaged, the community or society in general?" Or, to put it another way, "Is the activity in which I will be engaged important?"

DETAILS OF OPERATION

Procedures have been set up within the university for handling the income that members of the faculty on full time appointments turn over to the institution. Arrangements with an outside organization for the services of a faculty member may result in any one of the following three types of relationships, depending upon the circumstances.

Intercorporate Contract Relationship. Whenever it is desirable that the arrangement for the services of



the faculty member be deemed an arrangement between the outside organization and the University of Chicago as a corporation, a written agreement is entered into. Such an arrangement is cleared through the appropriate dean and referred to the business manager. A copy of such agreement is forwarded to the comptroller who will bill the outside organization in the name of the university. Under this type of arrangement, the outside organization will make checks for such services payable to the university. Thus no payment is made directly to the faculty member, thereby avoiding federal income tax complications.

Independent Contractor Relationship. When a faculty member enters into an arrangement with an outside organization for services as an "independent contractor," the outside organization will make the check payable to the faculty member for the gross

amount earned without any tax deduction. In such instances the faculty member will remit the gross amount to the University of Chicago, either by drawing his personal check to the order of the university or by indorsing to the university the check received from the outside organization. Under court decisions and rules of the Treasury Department, the faculty member must include this type of payment in his gross income for federal tax purposes but he may deduct a like amount under the provisions of Section 23 (a) of the Internal Revenue Code as an ordinary and necessary business expense. The result of this inclusion and deduction is that this transaction will have no net effect on the amount of tax payable by the faculty member.

Employer-Employee Relationship. When the outside organization and the faculty member enter into the employer-employee relationship, the outside organization will make checks payable to the faculty member and withhold the appropriate amount of federal tax. In such instances the faculty member will retain the check and include the gross earnings in his individual income tax return, take credit for the tax withheld and receive benefits under the Social Security Act for social security tax deductions. He will report to the comptroller the gross salary paid, the deduction for income tax, old age benefits and similar data, and the net amount of the check and will authorize the comptroller to reduce his university salary by the gross amount of the earnings.

Expenses incurred by a faculty member directly attributable to outside earnings will be recoverable in accordance with the established procedures of the university.



I want to call attention to one fact that is not generally understood widely by the outside community: that a member of the university faculty, and certainly a member who has indefinite tenure, is not an "employee" in the usual sense. A member of a university faculty is a member of a community of scholars, with great power in determining the educational policy of the institution and the shape of things of his profession. The goal of a university administration has to be to provide a means by which each member of the faculty can do these things in the best possible circumstances.

Purchasing Agent

NEEDS A CATALOG FILE

HENRY B. ABBETT

Purchasing Agent
Purdue University

"GOOD TOOLS ARE ESSENTIAL TO every trade" is a truism with which we are all familiar. It applies to purchasing as well as to any other well organized, constructive human activity. If a purchasing staff were permitted to select one and only one tool for the efficient operation of a department, it would of necessity be a commodity source reference.

Collectively, one speaks of such a tool as the collection of references listing sources and describing the various commodities that are used in an enterprise. These references include directories of manufacturers or distributors of classified commodities and catalogs describing specific commodities of manufacturers or distributors in detail. The directories are usually few in number but, for a highly organized institution, the catalogs are multiple and of many sizes and descriptions. It is with the latter that this article deals.

THIS SYSTEM WORKS

Of course it is desirable to have commodity references but, if the references are not readily available, they are valueless. Experience has taught us that under such conditions we must devise some kind of system of classification. What kind of a system then? Why a system that is simple and follows the natural line of one's thinking and is not too complicated to maintain!

The scope of the activity of an institution will determine the number of the catalogs and the number will determine the nature of the system. Suppose we put together such a system of classification.

One needs the name of a source (manufacturer or supplier) or references dealing with a general line (scientific supplies and equipment) or information about a specific item (microscopes). We then have three classifications: alphabetical, general and special. All catalogs should,

therefore, be classified alphabetically by the name of the manufacturer or supplier.

If a catalog deals with one or more specific items that are needed from time to time, it should be classified under one or more special headings. If a catalog covers a general line, it should be classified under a general heading and, if there are also a few items in the catalog of special interest, it should be classified also under the specific items.

Examples of general classifications are: scientific supplies and equipment; plumbing supplies and equipment; building supplies and equipment; shop supplies and equipment; hardware; paper.

Let's assume that a new catalog from the Bausch and Lomb Optical Co. comes to the desk of the purchasing agent. He examines it. He considers it desirable for future reference and clips onto the cover a printed slip like Form No. 1, writes in the general classification "Scientific Supplies and Equipment" and the special classification "Microscopes." The catalog is passed along to his assistant who examines it also and writes in a special classification "Microtome." Then it goes to the catalog clerk.

Instructions are necessary to establish cataloging procedure, hence the following simple rule may be applied:

All catalogs will be given a catalog number. A letter of the alphabet will be assigned to correspond with the first letter of the first proper name of the firm. An accession number by alphabetical grouping will be assigned to each catalog. Example: The Ajax Electrical Company's catalog was the eighth catalog received under the alphabetical group "A"; the catalog number will therefore be "A-8."

With the classification slip before her, the catalog clerk opens a 3 $\frac{3}{4}$ by 6 $\frac{3}{4}$ inch loose leaf, alphabetically indexed book, stamped "Accession Record, Form No. 2." Removing the last loose leaf under the "B" index, she types in the name "Bausch and Lomb Optical Co." and the number "10." The accession and catalog number of this catalog becomes "B-10."

Catalogs vary in thickness from several sheets to several inches. One can file these vertically on shelves or horizontally in four drawer files of the letter type. If a catalog file is voluminous, this is hardly a practical way, so a combination of the two methods may be selected and the following simple rule followed.

VERTICAL AND HORIZONTAL FILING

All catalogs the back of which are $\frac{3}{4}$ inch or more in width will be filed alphabetically on shelves in a vertical position, and all catalogs or pamphlets the backs of which are less than $\frac{3}{4}$ inch will be filed alphabetically in a letter file drawer in a horizontal position. In order to facilitate rapid filing and finding, the letter "S" will follow the catalog number of catalogs kept on the shelves (A-10-S), and the letter "F" will follow the catalog number of catalogs kept in the drawer file (B-13-F).

Because the catalog in question is more than $\frac{3}{4}$ inch in thickness, the complete catalog number becomes B-10-S. The catalog clerk types this number on a gummed label. Since the method of filing differs for catalogs of different sizes, the following rule may be applied:

Labels for catalogs kept on shelves will be placed on the backs of the catalogs 1 inch from the top. Labels for catalogs kept in the drawer file will be placed on the upper right hand corner of the front cover so that when the catalog is filed on its back the

Catalog this catalog as follows:

1. Alphabetical Index ✓
2. General Classification:
Scientific Supplies and Equipment
3. Special Classification:
Microscopes
Microtome

Name *Bausch & Lomb Optical Co.*
Address *Rochester, New York*

Articles
Scientific Sup. & Equipment
Microscope
Microtome

Form No. 1

Form No. 2

B

1 Baker Specialty & Supply Co.
2 Brown & Sharp Mfg. Co.
3 Burke Co., The J. E.
4 Brown Fence & Wire Co.
5 Brown Instrument Co.
6 Betz & Co., Frank S.
7 Becker, Christian, Inc.
8 Burroughs Adding Mch. Co.
9 Bradley Wash Fountain Co.
10 Bausch & Lomb Optical Co.

Form No. 3

Cat. No. *B-10-S*

Form No. 4

| Article | Name | Address | Cat. No. |
|-------------|------------------------|-----------------|----------|
| Microscopes | American Optical Co. | Buffalo, N.Y. | A-38-S |
| | Bausch & Lomb Opt. Co. | Rochester, N.Y. | B-10-S |

Four of the simple forms that enable the Purdue University purchasing agent and his staff to find information on commodities readily.

catalog number will appear at the upper left hand corner.

Following this rule, the catalog clerk sticks the typed label to the back of the catalog. She is now ready to prepare the classification cards. The name and address of the firm, the catalog number and articles or commodity classifications are typed on a 3 by 5 inch card, Form No. 3. Each catalog should always have a Form No. 3 card prepared. The general classification, the name and address of the firm and the catalog number are typed also on a 3 by 5 inch card, Form No. 4. A separate card, Form No. 4, is likewise prepared for each special classification. Only one card is prepared for each general and each special classification.

When preparing to catalog a new booklet, the clerk should check the general and special classification file to determine if the classifications have been used previously. If they have, then the same cards are used and only the name and address of the firm and

the catalog numbers are entered on the respective general and special classification cards.

Since the labels frequently fall off and are lost, the catalog clerk writes in ink on the inside front cover of the catalog both the general and special classifications and the catalog number.

Having completed the details, the clerk places the catalog alphabetically on the shelf, arranged numerically by accession number, and files the cards alphabetically under their proper



classifications in 3 by 5 inch drawers.

When replacement catalogs are received, the old catalog should be destroyed and the replacement should be given the same catalog number. If a catalog becomes obsolete it should be destroyed, the firm's name and the catalog number ruled out on the accession record and on the general and special classification cards or, if the catalog has separate general and special classification cards, these should be destroyed.

Periodically, the catalog file should be checked by the catalog clerk to keep it in order, to weed out obsolete catalogs and to replace the old catalogs with more recent issues.

The human factor must always be kept in mind in maintaining this valuable tool. The procedure should be in written form and a copy kept in the instruction book of the catalog clerk. The training of the clerk should be thorough; even then mistakes will be made. Constant supervision of the cataloging procedure is essential if it is to serve the interests of both the faculty and the purchasing staff.



CAN WE AFFORD TO BUILD NOW?

FRANK D. PETERSON

Comptroller,
University of Kentucky

THE FACTORS AFFECTING A BUILDING program of an educational institution are always complex and today's market conditions have imposed so many complications upon any building program, anywhere, that it is impossible to discuss all of them in one brief article.

After reading and considering many forecasts, periodicals and economic studies and after talking to many architects, engineers, bankers, business men and contractors, I offer a limited discussion on the following points: (1) reasons for not building today, (2) reasons for building today, (3) pressure from the backlog of public and private construction, (4) effect of labor on the future, (5) prospects for available building materials for 1947 and (6) conclusions.

REASONS FOR NOT BUILDING TODAY

Some people who have been in the construction business for a lifetime feel that this is no period in which to build.

Some blame government controls for present conditions. These people say irreparable harm was done by shortsighted, rigid controls where owners unavoidably suffered. Others, and sometimes the same people, say labor is to blame.

The construction cost of a building may be estimated at \$300,000 and likely it will cost \$500,000 before it is completed. Why blame the contractor

if he guesses high? He must guess high if he wishes to stay in the building business and out of bankruptcy proceedings. Truly, these conditions cause contractors to hesitate to seek "lump sum" contracts. Instead, they ask for "cost plus a percentage of the cost" or they specify "cost plus a fixed sum contract."

There certainly are many reasons why no human being can foresee what a building will cost on today's market. If the building is a self liquidating project to be financed through the issuance of revenue bonds and the cost increases 40 per cent above the estimate, there remains but one alternative and that is to increase the charge for services rendered. Generally, it is the people that pay and, in educational institutions, it is the students, the endowment fund or, if erected by legislative appropriations, the taxpayers.

Union hourly wages for building trades journeymen averaged \$1.94 an hour in November 1946¹ and for helpers and laborers, \$1.32. Bricklayers had the highest average, \$2.34 an hour; carpenters, \$1.97; electricians (inside wiremen), \$2.11; lathers, \$2.21; plasterers, \$2.22; plumbers and gas fitters, \$2.18; sheet metalworkers, \$2.06; stonemasons, \$2.24. The average worker puts in thirty-nine hours a week. Forecasters say there will probably be another 10 per cent increase in wage rates during 1947 and they make no prediction of a decline in the take home pay envelope.

Recently I heard of a contractor's paying bricklayers the union rates plus \$5 a day for reporting to work, plus expenses and other items to approximate \$87 a week. You think that was high? Read this: When I was a boy carrying the hod, a bricklayer was not considered a first class brick mason until he could lay from 1100 to 1200 bricks a day. An extra good brick mason laid 1600. On the job I just mentioned, the bricklayers averaged 340 bricks a day. Add the increased wage rates in the last decade, plus the difference in the number of bricks one man now lays, and you have an astoundingly increased cost for brick masonry work.

REASONS FOR BUILDING TODAY

Other people earnestly believe that educational institutions must expand immediately the facilities necessary to care for the largest enrollments that ever existed in our American colleges. These advocates of immediately expanding programs are supported by the former servicemen who desire college training now.

The enrollment in colleges and universities throughout the nation will probably never drop to its prewar level but instead should continue at its present high peak and may possibly increase. "Therefore," the former serviceman asks, "when can we receive our training if the schools are full and expansion programs are delayed?"

The advocates of immediate expansion admit there is a shortage of materials and that prices are high. It will,

¹From a paper presented at the Southern Association of College and University Business Officers.

¹Monthly Labor Review, January 1947; 14 per cent rise since July 1946 added.

they say, probably cost two or three times as much to build now as it did before World War II, but before the war, they argue, we, the public, were paying for these buildings with 80 cents a bushel wheat and now (March 18) we are getting \$3 a bushel on the Chicago market. In 1939 we sold corn at 62.9 cents a bushel; today it is worth \$1.38. Cotton, cattle, hogs show similar increases so what is the difference so far as the cost to the public is concerned. The public has three times the amount of money as have the banks.

Interest rates are thought to be low. We can issue bonds at 1½ to 2 per cent today. If we build later when prices are lower money rates will be higher and over a period of thirty years, a sizable sum of the saving gained through delay will be paid out for increased interest cost.

These reasons favoring immediate construction do not hold true if we build with endowment funds and gifts, except those types of endowment income and gifts received from sources that have been affected by inflationary conditions.

Regardless of the reasons for building or not building, one fact stares us all in the face with varying degrees of urgency. That is, on every campus there are obsolete, unsafe, insanitary buildings; on every campus there are crowded classrooms and out-of-date classroom facilities, and on every campus there are important new courses and departments being added that must have classrooms and other facilities of modern type if they are to serve their purpose.

PRESSURE FROM BACKLOG

At present, the accumulated need of public and private construction is great. A huge backlog of new construction has formed and increased resulting from various restrictions during the five war years (1941-45). Some say if we should build for the next five years we would not eliminate the backlog. Of course, we must remember that we are building for current needs as well as the structures deferred during the war period. So long as public and private forces need to construct and both groups continue to compete for the products of industry, however, there is not much likelihood of a marked reduction in prices of building materials.

The pressure of the construction backlog plus the pressure for entirely

new construction is going to hold up building costs. What practical steps can be taken to decrease this backlog under present conditions? A dent has been made by the action of the Federal Public Housing Authority which has transferred and erected on college campuses of the country thousands of units for single and married veterans. The Office of Education has certified to Federal Works Agency for about 19,000,000 square feet of floor space for educational facilities. The F.W.A., we are told, will be able to make available about 13,000,000 square feet of floor space found to be needed. This means that about 6,000,000 square feet of the needed floor space will not be met temporarily and this figure will undoubtedly be raised as the Office of Education further examines pending applications from colleges.

EFFECT OF LABOR'S ATTITUDE

The attitude of labor and management sways the thinking general public. The belligerent attitude of labor and management against each other is a barrier to any sound economic recovery. There have been, during the last year, more thinking and programming on the part of labor and management than during many previous years. This is all to the good of both and it would be a fine thing if both parties realized their mutual dependence.

It seems safe to say labor knows that strikes during 1947 will not be popular among the rank and file of labor nor with the public in general. Management knows better than any one else that strikes and walkouts do not pay dividends to stockholders. Both groups are conscious of the situation and, at times, seem to be in a conciliatory mood.

Labor undoubtedly knows of its inefficiency and, in many instances, has tried to improve. President Charles E. Wilson of General Motors estimated that the efficiency of the General Motors workers averages only about 80 per cent of the prewar standards. He said he believed that throughout the industry generally the situation is even worse. The average work efficiency is very low, despite the fact that workers, perhaps many thousands of them, are producing more than ever before.

The Committee of Economic Development reported that possibly the vicious cycle set in motion by low productivity is not universally understood, although it can be stated in simple terms: "Low production causes short-

ages and high unit cost of production; shortages and high unit costs lead to price increases; price increases reduce purchasing power; reduced purchasing power stimulates strikes for higher wages; strikes perpetuate low production."

Forecasters say further price inflation is unlikely unless the present improvement in labor-production relation proves short lived and that the commodity price level, on the whole, probably will recede. The overall decline this year may not be more than 10 per cent, yet some economists feel there will come a recession during the latter part of the year.

There seems good reason to believe that labor demands may not be so difficult to meet during the months ahead but it is also fairly certain that it is impossible to forecast the attitude of labor leaders. It is also well agreed that there will be a bottleneck in skilled labor during 1947 which will affect the total construction cost.

PROSPECTS FOR MATERIALS

The production of building materials in December 1946 was lower than estimated but, as a whole, it held up quite well. The production in January, according to reports, made an excellent showing and the figures for February and March, not now available, will undoubtedly show large increases.

The production of many items has improved in recent months and decreases were in the minority. The production of pig iron, cast-iron soil pipe, clay sewer pipe, plumbing fixtures, bathtubs, lavatories, sinks and cast-iron radiators has increased since the turn of the year.

The records show improvement in deliveries on cement, gypsum board, lathes and unglazed brick. Lumber recorded an excellent gain during the fourth quarter of 1946 and a seasonal decline in January. The production of softwood, plywood and hardwood flooring increased in January. In 1938 the mills produced 21,000,000,000 board feet and in 1946 the output was about 33,000,000,000 board feet.

Structural insulation board is about maintaining the output of recent months. We are told that the nail supply is coming into balance with the demand.

Copper, in various forms, is probably the scarcest of all commodities at this time. Insulated wire, however, has shown some improvement in recent

months, whereas delivery on transformers, large motors and generators is now promised in about two years.

Probably one of the most acute shortages is steel. The fact that much steel will be needed for rehabilitation of wartorn countries does not ease the emergency at home—the serious needs of the motor industry, of the railroads, on farms, for superhighways. Although the country is enjoying a so-called period of peace, the military requirements will be heavy, too. The navy has planned to build a "two-ocean navy" and steel represents a large part of navy construction. While all indications are that steel will continue to be produced in vast quantities, the outlook for steel orders and the extraordinary technical progress made by manufacturers during the war augur well for a postwar period more promising than that which followed World War I. The total ingot output should reach 75,000,000 tons in 1947 as compared with 67,000,000 tons in 1946, a 10 to 12 per cent gain.

Most vital materials for construction are slowly becoming available with every prospect of substantial increases up to normal during the next twelve to eighteen months. This tendency furnishes some basis upon which we may base our building program.

CONCLUSIONS

1. There has been built up over a period of five war years a huge backlog of construction needs in public and private construction fields further aggravated by the enormous enrollments in colleges making expansion of educational facilities urgent.

2. The federal government through the Federal Public Housing Authority and the Federal Works Agency has

made available to educational institutions housing for students and educational facilities for classroom and other needed purposes. These temporary facilities have relieved great pressure on educational institutions but have not alleviated the emergency which exists in colleges.

The cost to the federal government for these temporary structures has, according to figures released by F.P.H.A. and F.W.A., ranged between \$5 and \$6 a square foot area provided.

The cost to colleges for permanent structures, which will be needed, will probably range between \$10 and \$12 a square foot area built.

This raises an important question as to the wisdom of the federal government's stopping its present program of furnishing temporary structures to colleges and considering seriously a program of matching local funds to erect immediately permanent buildings.

3. Building costs are high and the outlook is that they will continue high for some time to come. There seems no material reason why prices will come down, sharply, so long as public and private forces compete for the products of industry which is unable to fulfill the demands for construction materials. It will still be a seller's market for some time to come.

4. Labor cost, which represents about two thirds of the cost of all construction, direct and indirect, will continue high and labor will, during 1947, receive further increases.

5. The material situation is still acute. Small inventories of materials and supplies in some fields are showing but in other fields the situation is still critical. It is a prediction that building materials will be available in quantity to ease demands before much

reduction in building cost is reflected because labor cost will continue to deter and slow construction.

6. There are at this time reasons to believe that real estate prices are easing off on old houses and that home building is slowing down. Prices are too high for the public to pay. This movement could and probably will increase to where it will affect the expected building boom and react to bring about a recession in the latter part of 1947.

7. Public institutions which derive their support from legislative appropriations should plan for the future and build with funds made available the structures most urgently needed. The tax dollar is derived from the income of the taxpayer whose income reflects the amount of inflation. The state and local governments are best able to build in inflated markets with the inflated dollar.

This does not hold 100 per cent for schools operating on endowments and gifts and those institutions should construct only buildings urgently needed for which they have received funds. They should defer the buildings that might wait until a more definite view can be had on the outlook for the remainder of 1947 and the forecast for the year 1948.

It is hoped that this quick review of the salient facts will provide the groundwork for an exchange of ideas that will be helpful to each of us in meeting the construction problem on our own campus. The total picture is not entirely hopeless but it is a fact that the adoption of a workable policy for any college or university building program for the present and the future will require a great deal of thought and hard work.

Furnishing a College Union Building—

becomes a major problem these days when prices are high and materials scarce. Michael Hare, New York architect and specialist in college union planning, will recommend in the July issue certain fundamental principles that should govern decisions on union furnishings and decoration.



Physical Education

RUTH ELLIOTT HOUSTON

Professor of Health Education and Director of College Gymnasium
New York State Teachers College, Buffalo

MANY COLLEGES ARE LOOKING FOR a living tribute to graduates and former students who wore the uniform of women's service units of World War II. They would do well to give serious thought to the erection of facilities designed for joyous participation in activities that build vitality and character.

Monuments of stone may serve only as reminders of service, whereas monuments of living function may serve as a means of building character, strengthening the physical power and fostering the future enjoyment of young women.

In contemplating the erection or expansion of physical facilities for women on a college campus, various factors need to be carefully considered: the location in relation to residential halls; the present and future program offered by the department; the choice of an architect who has had previous experience in designing similar buildings that have successfully withstood the test of daily use; the conformity of external structure to other buildings on the campus or a radical departure in architectural design; the climatic factors, and the overall cost.

During the last two decades there has been a farseeing plan in many colleges to concentrate the residential units in a specific area and to locate the physical education facilities as conveniently as possible to these units. This plan offers many obvious advantages in the way of convenience.

The program of activities should be the focus of attention since that determines the diversity and size of various areas. This program has undergone startling changes during the last fifty years in which physical education has passed from the infant stage of the educational family to sturdy adulthood and now is recognized as a vital member of the college curriculum. The accompanying table offers a cursory review of the progressive changes in activities for which differing types of areas, surfaces and equipment are needed.

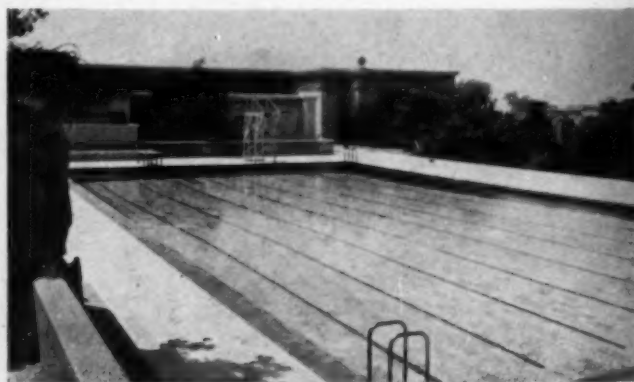
Since the modern college arranges the physical education schedule upon a seasonal basis, outdoor areas are as important as indoor areas. In the fall, archery, golf, hockey, lacrosse, soccer, speedball and tennis claim student interest; in the spring, archery, baseball,

golf and tennis prevail; horseback riding, boating and winter sports depend upon natural environment for their inclusion in the general program. Turf is the desirable surface for the majority of game areas but a harder surface is more acceptable for tennis. Indoor areas show greater diversity in function and will be considered later.

A new building should be functionally valid, should conform to legal building codes and should have areas that meet the minimum requirements established by the official rules of the various sports. A dual building for the physical education departments of men and of women is to be avoided vigorously. However, the campus plan should offer areas for co-recreation in certain activities.

A structure of two stories entirely above ground level can be effectively

TOP OF PAGE: Radical departure in design is demonstrated in Hales Memorial Gymnasium at Oberlin College. The floor area permits unrestricted activity; acid etched glass reduces glare.





LEFT: Outdoor fireplace for camp craft at Smith College. ABOVE: Scott Gymnasium at Smith, showing swimming pool unit with its southern exposure. The spectators may enter by an outside doorway.

Facilities

TO MEET THE NEEDS OF WOMEN STUDENTS

arranged in certain major units, with convenient approach and traffic from unit to unit.

From the main lobby direct access should be afforded to the offices of the director and certain staff members and adequate shower, dressing and toilet rooms provided. A departmental library, classrooms and seminar rooms should open from a central hallway. One classroom should be supplied with visual aid equipment, including projectors, a screen and a darkroom for processing films.

The health service is often located in the building. This calls for specialized types of rooms for medical and nursing staff, for consultation, examination and treatment, each with appropriate equipment and supplies.

Experience has shown that no single area is suitable for the diverse offer-

ings of the department; consequently, rooms are designed for specific types of activity. Practically all freshman students have required work in body mechanics or fundamental gymnastics and in various team sports. An unrestricted minimum area 70 by 100 feet with resilient subflooring and hard maple top is an excellent area for the former and can be arranged for the latter as follows: four badminton courts, two basketball courts, two volleyball courts. The lines for each can be of distinguishing colors painted prior to the final dressing.

Folding partitions should be avoided. The walls of this room should be of glazed brick; the windows of a material that diffuses light and diminishes glare. Anchor plates should be set in floor and walls for attachment of supports and nets; clamps on girders for

suspended equipment should be installed during construction, although this type of apparatus for general class use has practically disappeared.

Much thought should be given to the enrollment in terms of efficiency in instruction and in use of areas. The idea of so many square feet per individual is not valid in this phase of education. Classes averaging 30 are reasonable. Two courts for basketball can accommodate 24 players, those in excess of that number performing various officiating duties and alternating with classmates. A total of 16 students using four badminton courts can, of necessity, alternate with other class members, unless auxiliary rooms are available; four volleyball teams can occupy two courts. Softball, often played indoors, takes a total of 20 players for two teams. So-called recreation rooms that provide opportunity for shuffleboard, for deck tennis, paddle tennis and table tennis are desirable.

Increasing numbers of colleges are installing bowling alleys and are offering class instruction in this popular sport. In women's activities, the participant is more important than the spectator but it is wise to provide for the latter at certain open functions. The folding bleacher arrangement is a satisfactory device, so installed in recessed walls that, when closed, a smooth flat surface is the result.

Since dance in its various forms is a major offering in the modern pro-



OPPOSITE PAGE: Main pool of Hearst Memorial Gymnasium, University of California at Berkeley. LEFT: Lounge for physical education majors on the University of Washington campus, Seattle.

gram, it needs a room (minimum size 60 by 80 feet) especially equipped with a well conditioned, highly polished floor, several full length mirrors, a device for hanging and controlling draperies that serve as essential background and an adjoining room for storage of piano, percussion instruments, music and costumes. Care should be taken that only bare feet or soft sandals are used on this floor. Office space and dressing room for those directly concerned with instruction in rhythmic activities should be included in this unit.

Through the medical and physical examination of entering students many conditions are discovered that benefit by individual instruction. Consequently, corrective or remedial exercises are recommended in a room (minimum

35 by 60 feet), especially supplied with suspended and portable equipment and devices used only in this phase of the work. This might be conveniently located in respect to the health service unit.

A natatorium is now considered an essential unit of a physical education department and should be designed and constructed by experts in this field. Certain minimum factors, however, may be suggested. There should be a southern exposure on one side of the long axis. The water area should conform to established specifications of the National Collegiate Athletic Association, at least 30 feet wide, 25 feet high, 75 feet long, to provide four 7 foot lanes with an additional foot on each side, the depth ranging from 4 to 9 feet with 11 feet for a

1 meter board and 12 feet for a 3 meter board.

A nonslip deck 10 feet wide at the sides and 20 feet wide at the ends should surround the water surface; the entrance and exit should be at the shallow end. Ladders should be recessed at the four corners; a scum gutter should completely encircle the water basin. Soundproofing and moisture proofing are necessities. Underwater lighting and observation windows are becoming more frequently used in well designed pools. Spectator seats arranged in tiers should be so placed that no access is possible from seats to deck.

The instructor's office should be adjacent to the deep end and have an unobstructed view of the pool. Special chemical and mechanical installations and storage rooms for portable equipment and supplies should receive thoughtful consideration.

Although no single area in such a building can be designated as paramount to another, the location, arrangement and equipment of the dressing, locker, shower, drying and toilet rooms make or mar the efficiency of other units and the pleasure of the participants.

Several locker and dressing systems are in vogue. One type has a unit plan of one long locker, 72 by 12 by 12 inches servicing four to six half length lockers, 36 by 12 by 12 inches, arranged in rows with a permanently installed bench in a 6 foot aisle between the rows; another type is the basket system with individual dressing booths.

Gang showers are rapidly replacing individual showers in the proportion of 80 per cent of the former with one shower head to three students and 20 per cent of the latter in individual booths, 3 by 3 feet.

Methods of issuing uniforms (unless personally owned), swim suits and towels depend upon the flow of traffic from this unit to the other areas. Experience has proved that a mature matron, considerate but firm, adds much to the welfare of students and to the proper use of facilities. A nonslip flooring is an essential. There has been an antiseptic surface under experimental use but as yet long range results have not been announced.

Certain accessory rooms should be located in relation to their function, such as athletic association board room, kitchenette with service facilities; restroom or first aid room sup-

PROGRESSIVE CHANGES IN ACTIVITIES FOR WHICH FACILITIES ARE NEEDED

| | 1900 to 1910 | 1910 to 1920 | 1920 to 1930 | 1930 to 1940 | 1940 to present |
|------------------------------------|--------------------|--------------------|--------------------|--------------------|-----------------------|
| Gymnastics (various captions)..... | X | X | X | X | X |
| Corrective or medical..... | X | X | X | X | X |
| Swedish gymnastics..... | X | X | .. | .. | .. |
| Danish gymnastics..... | .. | .. | X | X | X |
| Dancing | | | | | |
| Folk..... | X | X | X | X | X |
| Esthetic..... | .. | X | X | .. | .. |
| Clog and tap..... | .. | X | X | X | X |
| Dance drama..... | .. | .. | X | X | X |
| Modern..... | .. | .. | .. | X | X |
| Social (coeducational)..... | .. | .. | .. | X | X |
| Sports | | | | | |
| Archery..... | X | X | X | X | X |
| Baseball..... | .. | X | X | X | X |
| Basketball..... | X | X | X | X | X |
| Fencing..... | .. | X | X | X | X |
| Golf..... | .. | .. | X | X | X |
| Hockey (field)..... | X | X | X | X | X |
| Tennis..... | X | X | X | X | X |
| Track..... | X | X | .. | .. | .. |
| Volleyball..... | .. | X | X | X | X |
| Water sports | | | | | |
| Canoeing and rowing..... | X | X | X | X | X |
| Swimming..... | X | X | X | X | X |
| Camp craft..... | .. | .. | X | X | X |
| Horseback riding..... | .. | .. | X | X | X |
| Lacrosse..... | .. | .. | X | X | X |
| Soccer..... | .. | .. | X | X | X |
| Speedball..... | .. | .. | X | X | X |
| Squash..... | .. | .. | X | X | X |
| Badminton..... | .. | .. | .. | X | X |
| Deck tennis..... | .. | .. | .. | X | X |
| Paddle tennis..... | .. | .. | .. | X | X |
| Shuffleboard..... | .. | .. | .. | X | X |
| Table tennis..... | .. | .. | .. | X | X |
| Tumbling..... | .. | .. | .. | X | X |
| Winter sports..... | .. | .. | .. | X | X |

An approximate table partially compiled from Modern Trends in Physical Education Facilities for College Women by Ruth Elliott Houston. Copyright 1939 by A. S. Barnes & Company, Inc.

plied with cots if no such accommodation is included in the health service unit; ticket booth in main hallway; dressing and shower rooms for men guests and faculty, if co-recreation activities are available in the building; laundry with proper equipment for all necessary departmental services unless this is supplied elsewhere on the campus; toilets and lavatories for men and women when public functions are held; custodial room with devices for repair and conditioning of all types of equipment used in the departmental program; storage rooms and sinks for maintenance purposes conveniently located; equipment rooms designed with proper racks, bins and devices for movable apparatus, archery tackle and targets, balls, bats, bicycles, canoes, golf clubs, badminton, squash and tennis rackets, mats, skates, skis, toboggans. If outdoor courts and fields are somewhat distant from the building, some type of structure is needed for dressing and for storage of equipment necessary to the sport.

In some climates a solarium is appreciated. Even in a northern latitude, space can be designated for sun bathing, when conditions permit. Cabins and camp sites for holidays and week end jaunts are often under the jurisdiction of this department, in which instance certain equipment for outdoor sports must be available.

It is taken for granted that well made plans will provide for acoustical treatment of all rooms; for proper illumination and heating according to the function of each room; for the control of moisture and condensation; for the best color and surface of walls and floor; for adequate electric outlets for bells, phones, buzzers, vacuum cleaners; for adequate plumbing, including drinking fountains, toilets, lavatories; for convenient service entrances; for movement of traffic within the building so that no class activity will be disturbed by people trespassing in that area in order to reach another unit, and for accessibility of certain areas for public functions without opening and heating the entire building being required.

From this brief analysis of modern physical education facilities, it is apparent that more area per student is needed than for any other department of a college program. Likewise, the cost of construction and maintenance is greater. Some colleges have found it advisable to work from an overall design, erecting such units as seem

most desirable and continuing construction as funds permit. Some have preferred to use inadequate and outmoded facilities until money is in hand for the desired result. Flexibility of areas to meet the program and vision of expansion, however, should always be the ultimate goal.

For the most part, college students remember the happy days of undergraduate life and those were largely conditioned by the pleasures of physical activity. Adequate facilities will foster those memories and will serve as a living tribute to those who answered their country's call.

BUSINESS OFFICE AND PUBLIC

T. C. CARLSON

Vice President for Finance, University of Arkansas

A SOUND AND EFFECTIVE POLICY OF public relations is a necessity for all institutions large or small, public or private, and the business office can play a part in any such program.

An important segment of the public is the student body. The contact with this group may be brief and at infrequent intervals but it certainly is important. The payment of fees, at best, is an unpleasant experience; it can be made less so by expediting the process as much as possible, by a pleasant and cooperative attitude on the part of all persons who serve the student and by helping the student over financial rough spots by deferring fees, making loans and other student aid devices.

The student is our nearest and most critical public when he is in school. His experience during those days will count heavily in his attitude in later years as an alumnus.

Most institutional business offices have little occasion to serve the parents of students. It is quite possible that we overlook in this respect a good opportunity of establishing better understanding. I am not sure that we are giving the parents an accounting of the fees that are paid by students and an explanation of the part such fees play in the educational program. A brief analysis of these charges and a statement of instructional costs will help parents understand the institution's problems and become more sympathetic supporters of its program.

Another portion of the public that becomes very important to many of us is the state legislature, city council or other governing body. In that relationship the business office becomes extremely important. It must be ready to furnish any and all information con-

cerning the affairs of the school on short notice. This gives the business officer a golden opportunity to justify the money that is spent on his activities. Complete accurate and understandable financial information is necessary to intelligent administration. With legislators, it is often the case that figures speak louder than words.

There are many other opportunities for us to build good will in our contacts with visitors, alumni, the press and radio, inspectors and auditors and governmental departments. The last named group has become increasingly important with the tremendous growth of veterans' enrollment and federal support of our various activities. Intelligent cooperation on our part is needed so as to make the most of the opportunities as they present themselves without ceding the right of our colleges to self determination.

But the group that we come into contact with most frequently is the seller of goods and services. We should strive to conduct our affairs so as to build confidence in our motives, our competence and our impartiality. A pleasant and courteous answer to all inquiries, no matter if they do try the patience, is a first step. A second is to give all interested vendors a chance to submit their wares and prices. A third is to follow the purchasing agent's code of ethics in all matters large and small. A fourth is to expedite payments of all claims as much as possible. This may not be so easy in public institutions but I daresay that even there we can improve in spite of handicaps.

When we have built up that precious asset of confidence in the minds of those with whom we have business dealings we shall find the returns in prices and services most gratifying.

A paper given at the Educational Buyers Association convention, May 1947.

MEATS LABORATORY for TEACHING and RESEARCH

MEETS EMERGENCIES, TOO



ROY W. SNYDER

Professor of Animal Husbandry
Agricultural and Mechanical College of Texas

THE MEATS LABORATORY OF THE Agricultural and Mechanical College of Texas, built with the original idea of student training, twice has been utilized in emergencies to perform a distinct community service since its completion in 1933.

During a six month period in 1934, 12,992 head of cattle were slaughtered for the Texas Relief Commission and the carcasses turned over to a relief cannery at Bryan, Tex., for canning. The relief canning project was made necessary by the killing drought that affected livestock throughout the Southwest.

It was during 1943 to 1946, however, when the meats laboratory was pressed into community service to perform its major wartime function of providing meats for approximately 9000 students, the city of College Station with its 5000 residents and the city of Bryan with its war swollen population of nearly 18,000 residents.

THREE YEAR RECORD

In the three year period the meats laboratory killed 19,855 cattle and calves weighing 10,048,842 pounds live, 9059 hogs weighing 1,971,078 pounds and 720 sheep weighing 61,710 pounds.

The college subsistence department furnished meals to all the army, navy, air corps and marine trainees quartered on the campus as well as to the civilian students in school during that time. The number of meals served during peak enrollment averaged about 27,000 daily.

Of the total number of cattle, hogs and sheep handled through the plant the college dining halls used 2335 cattle, 4040 calves, 4723 hogs and 276

sheep. More meat was really needed and could have been supplied but rationing regulations reduced the killing quota allowed. All of this meat was killed, refrigerated and cut and the beef boned at the meats laboratory. All beef was used fresh. Most of the pork except bacon and fat was consumed fresh. The bacon was cured and smoked and the fat was rendered for lard.

STUDENT TRAINING COURSES

Besides the program of commercial production of meat, two meat courses were given for student training each semester. During the latter part of 1943, the Quartermaster corps of the army trained 44 men in a special meat course at the laboratory. While the facilities of the laboratory were crowded to carry on teaching work, at the same time, the volume of animals processed provided an excellent opportunity for students to get experience. It was necessary to have a regular crew of men working full time.

The meats laboratory was originally built for student training but through foresight and good judgment it was made large enough to handle 75 cattle or 100 hogs as a daily kill. This was about the daily volume normally killed during this emergency period. The college was fortunate also in having a veterinary school that could supply the inspection of animals, both antemortem as well as postmortem, a requirement necessary in the feeding of army, navy, marine or air corps men on a contract basis as was done at Texas A & M College.

The scarcity of meat because of rationing and distribution problems forced the college to develop its own

slaughter animal production as much as possible. Only once during the time from May 1943 to October 1946 were cattle or hogs bought farther than 50 miles from the college.

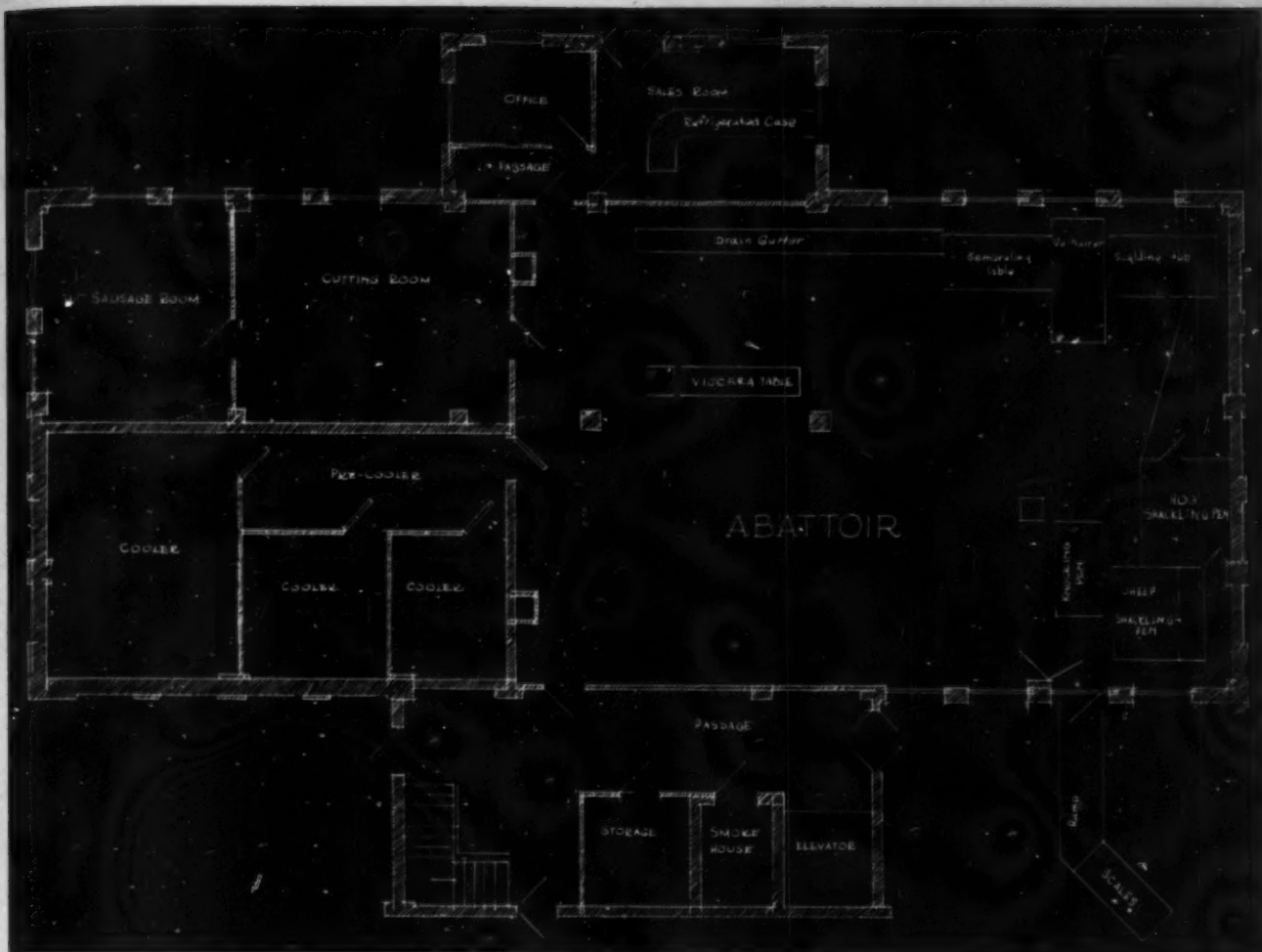
Besides the meat processed for the college mess halls, a large amount was killed for meat markets in the cities of College Station and Bryan. This was done to furnish those markets with federally inspected meat or its equivalent, a requirement demanded by the commanding officer at Bryan Army Air Field located just west of the city of Bryan. From May 1943 to April 1946 the laboratory killed for these markets 3705 head of cattle, 9775 calves, 4336 hogs and 444 sheep. The cattle weighed 2,577,970 pounds live, the calves 3,837,780 pounds, the hogs 883,385 and sheep 38,899 pounds.

"BEST IN SERVICE"

Thousands of military service men took training at Texas A & M College and practically all said the food there was the best they received in military service. Many army officers rated the food service highly. If it had not been for the meats laboratory's ability to produce in volume, many meals would have been meatless at the dining halls and the meat shortage in and around College Station and Bryan would have been much more acute.

Completion of an approved abattoir in Bryan and resumption of shipment of meats by large packers after the war allowed college authorities again to use the meats laboratory facilities for teaching and research projects.

In addition to killing and refrigeration facilities, the laboratory includes a model freezer locker plant.



Built for student training and research, the Texas A & M meats laboratory has twice turned to spectacular community service: in the killing drought of 1934 and again in the armed services' feeding and training program during World War II. The floor plan is shown above.



SCRAPING done, students slit the carcass to remove viscera.



View of the killing floor in the laboratory showing the overhead track and hoisting equipment, the head inspection rack and the viscera table.



By C. A. LIVINGSTON

General Superintendent
of Buildings and Grounds
University of Rochester



THIS WELL PLANNED SERVICE BUILDING

**has kept pace for twelve years
with growing physical plant and
climbing student enrollments**

THE HEART OF THE VAST PHYSICAL plant of the University of Rochester, consisting of four widely separated campuses and some 50 buildings, is the relatively small but extremely efficient service building.

In it are centered the activities of the buildings and grounds department, whose job it is to keep the enormous plant operating smoothly and to maintain it constantly at its attractive best. The service staff's responsibilities begin underground with the subterranean service tunnels, sewers and cables, take in the grooming of more than 200 acres of lawns, shrubs and trees and extend all the way up to the top of the 180 foot library tower, the loftiest point on the campuses.

Structures range from such standard campus units as classroom build-

ings and laboratories, dormitories, gymnasiums, football stadium and libraries to an art gallery of metropolitan size, a theater seating 3300 persons, several smaller auditoriums varying in seating capacity from 300 to 1200, a huge medical school and hospital plant, an athletic field house and a 250,000,000 volt atom smashing laboratory now under construction.

The service building is the center of these major functions and countless auxiliary services: supervision and executive direction of building and construction, repair, alterations and operation of the complete physical plant of the university; care and landscaping of more than 220 acres of grounds and athletic fields, including snow removal, road and sidewalk maintenance; operation of university service shops—carpenter, electrical, mechanical, plumbing, painting and automotive equipment repair; supervision of heat, light and power generation and distribution and maintenance of plumbing, refrigeration and sprinkler systems; operation of university mail and parcel post service; reception and distribution of freight and express; custody of construction blueprints of university buildings, keys for all buildings and building records.

Directly under the general superintendent of buildings and grounds are an assistant superintendent, a general

foreman of janitors, a chief electrician, a chief painter and a head carpenter. A staff of 160, including janitors, maids, carpenters, electricians, grounds-men, masons, painters, mechanics and others, takes care of all the university campuses. About 60 per cent of them have worked for the university from fifteen to twenty-five years.

Because of its widely dispersed campuses and the broad range of its programs, the University of Rochester presents some special problems of operation and maintenance.

Its College for Men is located at the River Campus on 87 acres of rolling terrain on the banks of the Genesee River. Its College for Women is situated on the original 26 acre university campus near the heart of downtown Rochester, more than 3 miles from River Campus. Its Eastman School of Music is in downtown Rochester; its school of medicine and dentistry has its own 100 acre campus adjoining that of the College for Men. These divisions, with the graduate school, University School of Liberal and Applied Studies and the school of nursing, serve approximately 6500 full time and part time students, consid-

erably above prewar enrollment. The increased registration has brought with it, of course, the added need for temporary housing quarters for single and married veteran students, for whom dwelling units have been erected at River Campus and medical school.

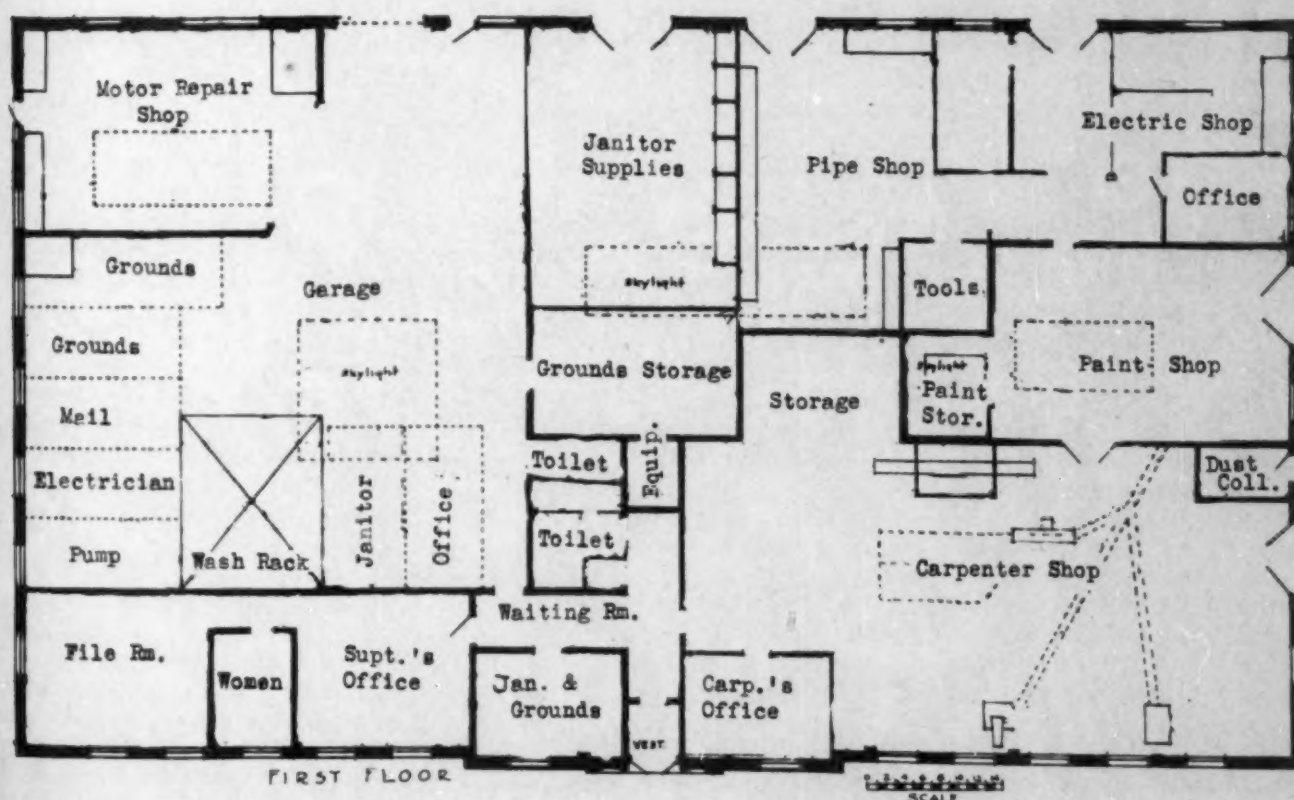
Because of its size and special factors involved, the school of medicine and dentistry maintains its own building and grounds staff, but under the general supervision of the department of buildings and grounds.

Unlike many universities that have grown to large size gradually over a period of years, the University of Rochester experienced a major expansion in a short space of time and with it tremendous new problems of plant operation and maintenance.

Until 1935 the various divisions of the buildings and grounds department were scattered around the university's various campuses. In that year, after three years of study and planning, the service building was completed on the River Campus of the College for Men, under the supervision of the superintendent of buildings and grounds.

The building is 144 feet by 82 feet, one story high with a flat roof that allows ample skylighting of all service shops. It is of steel frame construction, finished with Harvard brick and limestone trim to match the academic buildings on the men's campus. All

OPPOSITE PAGE: Interior of carpenter shop. BELOW: First floor plan of service building.



interior walls except for the offices, which are plastered, are of smooth-faced tile. The functions carried on within the building itself, or directed from its offices, make the university virtually self sustaining in its operation and maintenance so that only rarely is it necessary to call upon outside help or facilities for any work done on campus grounds, buildings, equipment and furnishings.

Across the east end of the building are the carpenter shop, the paint shop and the electric shop, each opening into the other for efficient operation. The carpenter shop is equipped with a portable power saw, a fixed table power saw, cut off saw, band saw, jointer, woodcarving lathe and drill press. All equipment is connected to sawdust exhausts, most of them under the floors, and the sawdust is collected in a dustproof chamber. Storage racks contain lumber, wallboard and other materials. Also in the carpenter shop is equipment for making keys for all university buildings. A complete, codified key file is maintained in the superintendent's office.

Adjoining the carpenter shop is the paint shop where office and classroom furniture and many other items, large and small, are refinished. A feature is a portable spray booth that can be stored when not in use. All paints are kept in a fireproof storage room opening off the shop.

Equipment in the electric shop includes a program master clock, for operating class bell systems, and a master time clock that regulates electric clocks in all the buildings on the campus. Washington Naval Observatory time is checked constantly by means of a special shortwave radio receiving set. An adjacent lamp storage room contains supplies of bulbs from flashlight size up to 3000 watt lamps for use in the athletic field house and basketball palaestra.

Duties of the university electricians range from oiling, maintenance and repair of hundreds of motors and generators, elevators, refrigeration and kitchen appliances and laboratory equipment to maintenance and adjustment of the 17 ton, 17 bell chime in the 180 foot high library tower. An example of the ingenuity of the electrical and carpentry staffs was the designing and building of a scoreboard and time clock for the football stadium. They built the entire scoreboard, with a movable football, and the clock mechanism so arranged with

duplicate gears that it can be used also for basketball games in the palaestra.

Each shop has delivery doors large enough to admit trucks for ready loading and unloading of equipment and materials.

A janitors' storeroom in the service building contains on its shelves and in its bins a vast assortment of materials, such as paper towels, cleaning compounds, brushes, waxes, tools, floor cleaning machines and other items necessary to keeping buildings and equipment clean.

Also under the same roof is a large sized garage which has an overhead track with a traveling hoist, power grinder for sharpening both hand driven and motor driven lawn mowers, electric welding equipment, black-



The last fish was out of the pool and the meet could begin.

smith forge and battery charger. The university's mobile equipment consists of eight trucks of various sizes, snowplows, tractors and lawnmowers. All repair work on these is done by the university's own mechanics and the garage is large enough to house all the institution's automotive equipment.

In addition to the shops, the service building contains the offices of the superintendent of buildings and grounds and of his chief assistants.

So well was the service building planned that it has been able to keep pace with the increased demands of growing student enrollment, new buildings and equipment that have been added in the nearly twelve years since it was completed. New structures are going up on the University of Rochester campuses steadily, such as the 250,000,000 volt super atom smasher now being erected, a new

psychiatric clinic at the medical school, a naval science building for N.R.O.T.C. training and others of magnitude.

Endless details could be given of the variety and unusualness of the tasks that the service department is called upon to do but, as yet, it has not been stumped. One emergency in particular had the staff baffled momentarily, but it recovered quickly.

An intersectional collegiate championship swimming meet was being held at the men's college pool a few years ago. The semifinals had been staged and the day had arrived for the big final races to decide the title winners. A capacity crowd was anticipated for the event; the natatorium was in holiday trim; the doors were locked to prevent any intruders from messing up the place.

The meet was scheduled for 7:30 p.m. About 5 p.m., a member of the service staff looked in on the natatorium to make sure all was in readiness. The place looked immaculate and he was starting to leave when out of the corner of his eye he saw something flash through the crystal clear water of the pool. He did a double-take, then rushed over to peer down into the water. His anguished yells brought members of the physical education staff running to the pool. His rage was such that he could only point to the water and make hoarse sounds.

The pool was full of fish—hundreds of them—some swimming happily about, many more floating lifelessly on the surface, killed by the chlorine in the water. How they got there or who were the inspired and ambitious pranksters who put them in the pool was never learned. At the moment, however, that was not the pressing problem; it was how to get the fish out so that the swimming meet could go on. The service crew was galvanized into action. Some rushed downtown to sporting goods stores and obtained the biggest nets they could find; all fell to work frenziedly scooping the piscatorial pests from the pool and carting them away.

By this time, word of the predicament had spread all over the campus and students crowded into the natatorium to stand around the balcony and cheer or jeer at the toiling fishermen. Only a short time before the meet was to go on, the last fish had been removed, the pool cleaned and the natatorium in readiness for the show.

Once again, the service department had saved the day!

United Negro College Fund

SETS A PATTERN IN FINANCE

J. W. TRENT Jr.

Executive Director, United Negro College Fund

THE UNITED NEGRO COLLEGE FUND, an "educational community chest" for 33 private Negro colleges, has been deemed one of the most significant developments in Negro education in the last quarter century. It is concerned entirely with finding new sources of revenue for the current operating costs of its member colleges.

Private Negro colleges, with meager endowments and the necessity for maintaining tuition at a low level in order to meet the economic requirements of their students, have depended a great deal on income from gifts and grants. A part of this has come from church boards since the majority of the private Negro colleges are church related institutions. But a significant part has come from contributions by a dedicated group of wealthy individuals and philanthropic foundations.

In 1941 an analysis of the trend in income from the latter source disclosed the disturbing fact that such income had declined almost 50 per cent from 1920 to 1940 and was continuing downward at a rapid pace. This was due primarily to the passing away of old friends and the shift in emphasis of certain major philanthropic foundations interested in Negro education.

This was the situation in 1943 when President F. D. Patterson of Tuskegee Institute first broached the idea of a joint fund raising organization for Negro colleges in an article in a Negro newspaper, the *Pittsburgh Courier*. Soon thereafter, the presidents of several of these colleges met to discuss the possibilities of such an organization and how best to accomplish its objectives which were:

1. To dramatize effectively the important work being done by the private colleges for Negroes.
2. To procure a large number of new friends of moderate means while cultivating those able to give largely.
3. To obtain a significant portion of the funds from Negroes.

4. To make for economy in the raising of funds.

Out of these conferences developed the United Negro College Fund which was organized late in 1943 at Atlanta University with Dr. Patterson as its first president. National headquarters of the fund are located at 38 East Fifty-Seventh Street, New York City. Twenty-seven colleges were members the first year. Today, 33 of the eligible 37 private Negro colleges are members of the fund.

In order for an institution to become a member of the fund it must be a private, four year, properly accredited college or professional school. In addition, the college must be tax exempt and must agree to cease all fund raising for current purposes except through the joint campaign of the fund. This last restriction, however, does not preclude fund raising activity for endowment and capital purposes by member colleges during certain periods of the year that have been both well and carefully defined.

The colleges in the fund have a combined enrollment of more than 25,000 students and annual budgets covering educational purposes and auxiliary enterprises in excess of \$13,000,000.

Each year in the spring, a campaign is conducted by the fund in 35 major cities and in the communities in which the colleges are located. Outstanding men and women are chosen as national campaign officials and a national advisory committee of some 150 prominent men and women from over the country is set up. The chairman of the national advisory committee for the last three years has been John D. Rockefeller Jr. The regular staff of the fund is augmented by additional fund raising personnel and the services of a professional fund raising firm are used for a portion of the time.

As an integral part of the campaign's organizational work, the president of each member college is responsible for the oversight of the campaign in some major city as well as

MEMBER COLLEGES OF UNITED NEGRO COLLEGE FUND

Atlanta University, Atlanta, Ga.
Atlanta University School of Social Work, Atlanta, Ga.
Benedict College, Columbia, S. C.
Bennett College, Greensboro, N. C.
Bethune-Cookman College, Daytona Beach, Fla.
Bishop College, Marshall, Tex.
Clark College, Atlanta, Ga.
Dillard University, New Orleans
Fisk University, Nashville, Tenn.
Gammon Theological Seminary, Atlanta, Ga.
Hampton Institute, Hampton, Va.
Howard University, Washington, D.C.
Johnson C. Smith University, Charlotte, N. C.
Knoxville College, Knoxville, Tenn.
Lane College, Jackson, Tenn.
LeMoyné College, Memphis, Tenn.

Lincoln University, Chester, Pa.
Livingston College, Salisbury, N. C.
Morehouse College, Atlanta, Ga.
Morris Brown College, Atlanta, Ga.
Paine College, Augusta, Ga.
Philander Smith College, Little Rock, Ark.
Samuel Houston College, Austin, Tex.
Shaw University, Raleigh, N. C.
Spelman College, Atlanta, Ga.
Talladega College, Talladega, Ala.
Texas College, Tyler, Tex.
Tillotson College, Austin, Tex.
Tougaloo College, Tougaloo, Miss.
Tuskegee Institute, Tuskegee Institute, Ala.
Virginia Union University, Richmond, Va.
Wiley College, Marshall, Tex.
Xavier University, New Orleans

in his own community. All of the presidents agree to spend not less than one month helping to organize campaigns and aiding in solicitation of prospects.

General support is sought from business corporations, foundations, labor unions, organized church groups, social and professional organizations and selected individual prospects. In addition, special work is carried on among the alumni of the member colleges and through them to larger groups of Negro prospects. No attempt is made at a mass canvass among the general population.

The campaign organization in the local communities is interracial in nature. The local leadership is provided by a chairman and a co-chairman, one of whom is a white person and the other a Negro.

In the earliest deliberation of the fund, the question of how the funds should be distributed among member colleges came in for a great deal of consideration. The members of the board (who are the presidents of the member colleges and two additional persons) agreed that any formula of distribution must meet three major criteria:

1. The method of distribution should be relatively simple and easy to calculate in order to avoid any misunderstanding.

2. The method must be fair and equitable as between institutions.

3. The method must have the unanimous support of member institutions.

The present formula for distribution is as follows:

Three eighths of the net proceeds to be divided equally among member institutions.

Three eighths of the net proceeds to be divided on the basis of percentages derived from the ratio of the five year average income from gifts, grants and endowments of each member college to the five year average from the same sources for all member colleges.

One fourth of the proceeds to be divided on the basis of percentages derived from the ratio of the five year average weighted enrollment of each member college to the five year average weighted enrollment of all member colleges.

The fund has conducted three campaigns for money for its member colleges and approximately \$3,000,000 has been raised. A study of the returns over the last three years indi-

cates that there is widespread public acceptance of the joint campaign for higher education for Negroes. Business corporations have given to the fund because they recognize these 33 colleges as valuable sources of leadership for a people. Foundations, convinced of the vital rôle that education plays in our democratic society, have expanded their support. Individuals, North and South, have consistently contributed about 40 per cent of the funds raised. Negroes themselves have shown their willingness to aid their institutions by contributing more than

13 per cent of the money raised each year. Increasing support is being given to the fund by organized labor and church groups.

The fund as an experiment in cooperative educational fund raising has received widespread acclaim.

It is generally believed that white and Negro citizens working together on the common problem have learned a great deal that should help to create better understanding among racial groups. This important by-product of the fund raising program is valuable to American democracy.

TWELVE INVESTMENT PRINCIPLES

worked out for Methodist colleges

JOHN O. GROSS

Board of Education of the Methodist Church

THE DEPARTMENT OF EDUCATIONAL institutions of the board of education of the Methodist Church is a service agency for the Methodist related institutions of higher learning. Among the various services that it renders to these institutions is to furnish counsel and guidance on ways and means of handling permanent investments. It recognizes that these are critical days for endowment portfolios and regularly urges all of the Methodist related institutions to procure the most competent service possible for the caring of their permanent funds.

Endowments of all institutions related to the Methodist Church have increased during the last five years from \$143,284,181 to \$193,482,996, or 35 per cent. A study has been made of the distribution of the investments of 67 Methodist colleges that have total permanent funds of \$65,767,568 which shows that their investments are distributed as follows:

| | |
|-----------------------|-----|
| Bonds | 27% |
| Preferred Stock | 10% |
| Common Stock | 19% |
| Real Estate | 22% |
| Mortgages | 8% |
| Dormitories | 5% |
| Other | 9% |

In cooperation with the university senate of the Methodist Church, the

body charged by the General Conference of the Methodist Church with the responsibility of seeing that all Methodist institutions have sound academic and financial practices, this department called the attention of all Methodist institutions to the following: (1) the necessity of creating and maintaining a well selected committee on investments; (2) the employment of adequate professional investment counsel.

FINDING COMPETENT ADVISERS

At the suggestion of the senate it has made available to Methodist educational institutions ways and means by which they may locate and procure competent investment counsel. At present, only 39 of the institutions receive professional help in the care of their endowment funds. The senate voted also to have the investment portfolios of any institution which applies for full accreditation analyzed by some competent agency to ascertain the real value of its endowment.

During 1946 the department of educational institutions held four regional conferences at Atlanta, Ga.; Columbus, Ohio; Dallas, Tex., and Des Moines, Iowa, to which 40 educational institutions sent representa-

tives. The discussions in these conferences were guided by Robert G. Collins, vice president and trust officer of the First National Bank of Chicago. Basic elementary practices for investment holdings were set forth and the representatives of the different institutions were given opportunities to discuss with the counselor the peculiar problems pertaining to their own institutions.

Recently, the department of educational institutions began the publication of a quarterly four page bulletin for college trustees. The aim of this bulletin is to give helpful suggestions to the persons who constitute the boards of trust of Methodist related colleges, to furnish occasional norms by which they can measure the efforts of their institutions and to exchange ideas and plans that have proved helpful to other institutions. The January issue of the bulletin devoted two pages to sound investment practices. We quote from the current issue of *Trustee* the following:

"Generally speaking, persons capable of making substantial gifts to an educational institution want to be assured that the history of the institution they propose to help reflects unquestioned integrity in fiduciary matters. The investment portfolio of an institution is a school's No. 1 exhibit of its method of administering permanent funds.

"Because of the lack of a dependable policy for the care of permanent funds some schools have failed to develop the confidence needed for the securing of sizable gifts. Obviously, an institution that uses its permanent funds for current expense breaks faith with its donors and violates the trust reposed in it. Who will say that an institution that fails to safeguard its endowment funds is not breaking faith with donors who aimed to contribute to the permanent holdings of the institution!"

TWELVE PRINCIPLES CITED

In order to provide colleges with some guiding principles for the administration and management of our exemplary endowment account the help of several competent authorities on investment procedures and practices was solicited.

The following are 12 principles submitted to Methodist institutions by which they can measure their own practices in the administration of their permanent funds:

1. Safety of the principal is the primary guiding consideration in the choice of investments; maximum income is important but is secondary to safety of principal.

2. Diversification of all investments with care not to have a disproportionate amount in any one kind, or too many maturing in a single period, is important and should be particularly emphasized in the choice of common stocks and other equities.

3. Ordinarily, the fund will have at least \$2 invested in sound and fixed income securities (bonds, mortgages, preferred stocks and similar items) for each dollar of equities and never less than an equal amount.

4. Holdings of common stock, real estate and other equities should, in general, be increased when prices are below average and the purchase of such holdings should be progressively reduced as prices advance above long term average levels.

5. Profits on the sale of investment assets should be credited to a special reserve available only for taking losses on other sales.

6. Assets received as gifts should be promptly evaluated and those that do not meet the committee's standards for purchase or are undesirable for other reasons should be either sold immediately or earmarked for sale at acceptable prices.

QUESTIONABLE USE OF ENDOWMENT

7. Endowment funds are never invested in the nonincome producing plant facilities of the college and only in income producing plant units of the college when "yes" is the unqualified answer to the question, "Would this investment be approved if our institution were not involved?" Neither should the investment of permanent funds be made in the form of a loan or mortgage to any institution or individual where necessary action enforcing collection would prove embarrassing.

8. Endowment funds should never be loaned or their securities used as collateral for a loan to pay the institution's current expenses. Neither should investments be bought by or sold to a member of the board of trustees of the investment committee.

9. Investment responsibilities with an established measure of authority should rest with an investment committee comprised of those members of the board of trustees who, because of ability and experience, are best

qualified to handle the institution's trust funds. The committee should employ competent and disinterested counsel not engaged in the buying and selling of securities.

10. A custodian arrangement should be made with a bank or trust company having adequate safety deposit facilities. Access to the securities of the fund should be had only by two persons jointly and the combination of persons who have access to the fund should be specifically approved by the board.

11. In order to make sure that security purchases and sales are made at the most advantageous prices, the institution or its authorized representative should transact its business with reliable security houses and not limit its dealings to one or two dealers in investments.

12. Endowment funds of a church related college should never knowingly be invested in enterprises out of accord with the general social aims of the church.

HOW MANY EGGS IN ONE BASKET?

It is generally felt that individual investments, except government bonds, should seldom exceed 5 per cent of the total fund. Preferred stock should not exceed 10 per cent and should be mostly in companies without debt senior to the preferred stock.

A treasurer of a university having a large endowment questions, though, the placing of 5 per cent of the total fund in any one investment. He believes that on funds of less than \$1,000,000 either 0.5 or 1 per cent should be the maximum and on funds of \$1,000,000 to \$5,000,000, 1.5 per cent.

Another authority on investments doubts the wisdom of fixed limits. He believes that it is more important that an institution have a well considered policy on this matter than that every institution have the same policy. He believes that the larger the fund the larger the percentage that might be in equities.

Some colleges follow different practices concerning profits on sales of investments such as mentioned in No. 5. One treasurer indicates that he does not favor the special reserve but has always preferred to credit profits and charge losses to each transaction when completed. This, he feels, gives a more nearly accurate and a more comprehensive understanding at all times within any one fiscal year.



Down

A. F. CONRAD

Superintendent of Grounds
Miami University

LEFT: For rapid and economical removal of infected elms, Miami University purchased a power chain that has more than paid for itself by savings in labor costs. Shown here, the saw is in operation on an 84 year old elm, six feet in diameter. Sawing time: six minutes.

THERE IS A GRAVE POSSIBILITY THAT college campuses in the Middle West may suffer epidemic loss of American elms in the next few years. Much of the damage will result from phloem necrosis, a virus disease of which prevention is not known, the disseminator is not known and control is not known. In some cases, too, Dutch elm disease will also take its toll.

If the rapid spread of phloem necrosis from 1935 to 1944 were to be used as an index, further spread should be anticipated. Also it is possible that more intense activity of the disease will be noted in the present known areas where there has been loss.

Should these diseases strike your campus there will arise a number of problems: cutting and removal of dead trees, removal of stumps and diversified new planting to replace the lost trees. Miami University has suffered loss of 75 per cent of its elms in the past few years from phloem necrosis and has worked out practical solutions of the problems involved.

While Oxford, Ohio, the home of Miami University, is in an area in which elm grows easily and in which it has been extensively planted, the university is fortunate in that a pro-

gram of diversified planting on its main campus has been followed over many years, a wise policy at any time. The campus is still clothed with a wealth of mixed hardwoods, some of which predate the founding of the university in 1809—this in spite of the loss of 1200 elms.

Phloem necrosis has probably existed in the Central Midwest for decades but has been identified positively only recently. The present outbreak was first observed at Ironton, Ohio, in 1918 whence it spread to southwest Ohio and adjacent states. In some localities it attained epidemic proportions and the losses of both wild and planted elms have reached 75 per cent. The disease now occurs in 13 states: Ohio, Indiana, Kentucky, West Virginia, Tennessee, Illinois, Missouri, Iowa, Nebraska, Kansas, Oklahoma, Arkansas and Mississippi.

The horticultural varieties of American elm, such as moline and vase, are extremely susceptible to this destructive agent and, unfortunately, they have been planted extensively in the Middle West and to a lesser extent in the entire range of the elm, from New England to the Rockies and south to Texas. Until more is known of the

factors determining dispersion of the disease, its ultimate distribution within the natural elm range is purely conjecture.

At Miami we have learned that no tree ever infected has recovered and that our trees continue to die. We have experimented with poison, both stomach and contact, with repellents, chemical injections, pruning, watering and feeding 14 element fertilizers with no tangible results.

Age was evidently not a factor in susceptibility to the disease. Some trees died quickly, while others lingered for two years; the maximum age was 143 years and the maximum size was greater than 6 feet in diameter. Until older trees were affected, it was hoped that they were a possible source of disease-resistant stock as they had probably survived the epidemic dying of elms in the 1880's reported in northern Kentucky and in Ohio near Cincinnati. Symptoms of that disease were similar to those of the present malady.

When the disease attacked Miami elms, foliar symptoms noted on individual trees varied. In most cases there was progressive yellowing of the foliage followed by complete defoliation. In others there was noticeable

Go the Elms TO CHECK PHLOEM NECROSIS

Photographs
by the author

RIGHT: Hauling the logs posed a problem that was solved by using equipment available in almost all institutions. To attach the log, the body of the truck was elevated by hoist. When the body was lowered to normal position, the log was lifted, ready for transporting.



drying with a tendency of the leaf to fold along the midrib and to appear gray-green. Leaves on vigorous small trees (6 to 10 inches in diameter) turned rapidly from rich green to dirty brown and were retained by the tree after death.

Both physiological disturbances and wilt organisms other than phloem necrosis can cause similar foliar symptoms; however, there are two symptoms that are accepted as specific in phloem necrosis: the golden brown or butterscotch color of the inner bark of large roots and the wintergreen odor in the bark of infected trees. Holding a sample in the palm of the hand intensifies the odor. No tree displaying these symptoms has been known to recover.

On many of the large trees there was heavy abscission of small twigs, caused in part by the crotch feeding of the European beetle. While still in the yellow foliage stage the boles of some trees were host to myriads of flies, wasps, honeybees and yellow jackets. Imbibing the attractant substance resulted in inebriation or stupefaction to the point of docility.

Elm bark beetles were present in all dead and dying trees. In this locality

both the native bark beetle (*Hylurgopinus rufipes*) and the smaller European elm bark beetle (*Scolytus multistriatus*) exist. It is easy to determine by their egg galleries which beetles are present. Those of the European beetle run parallel with the grain; those of the native beetle are tunneled at right angles.

Since the causal agent of Dutch elm disease has been cultured from beetle tunnel borings, a double threat was presented to elms in this locality. Asking for trees with natural resistance to both phloem necrosis and Dutch elm disease is imposing on Providence.

If Dutch elm disease exists in a locality, trees that may possess natural resistance to phloem necrosis may be saved by strict sanitation measures. This led to our concentration on the removal and the disposal of dead and dying trees.

The presence of beetles was but one reason for immediate removal. Most dead elms become brash within a few months and are a hazard. Early removal permits sale for use as lumber, firewood and pulp.

Thousands of board feet of elm for rough construction on the Miami cam-

pus were obtained at one third current cost in a period in which lumber was unusually difficult to obtain.

Because of labor shortages, of cost of removal by hand and of diseases that stumpage would be subject to, a power chain saw was purchased for rapid and economical removal. This equipment has more than paid for itself by savings in labor costs, as three men with a saw are equal to 10 with hand tools.

The power saw has been used for cutting stumps several inches below the ground level. Badly worn saw chains were used in this operation because of the possibility of foreign materials in the stumps. The trench dug around the stump for clearance of the power head was later filled, graded and seeded. In time there will be some settlement from decay of the covered stump but cost of subsequent fillings will be much less than the complete removal of the stump by excavating, use of heavy equipment and wear and tear of this equipment on turf areas in the process of removal and disposal.

Gratifying results were obtained from sawing stumps flush with the ground and then burning the portion



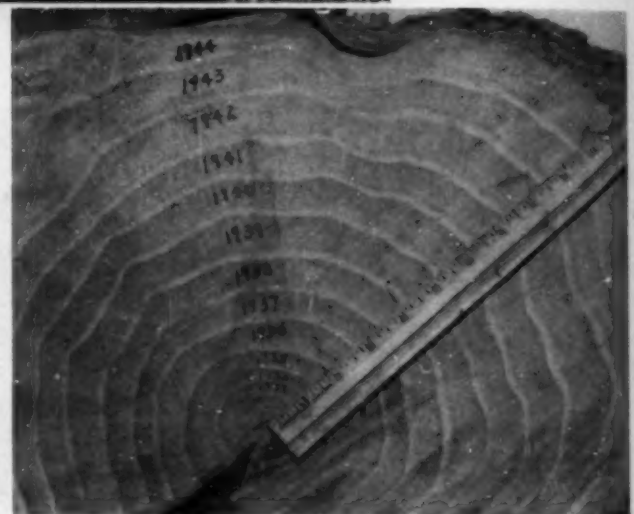
NO PHOENIX is the elm infected with phloem necrosis. The containers in the picture at the left drip just enough fuel to maintain a funeral pyre that will consume not renew the mortal remains of the once magnificent trees. There is no known defense against infection. Fortunately, in spite of recent elm loss, the Miami campus has a wealth of trees as shown in background.

below the ground level, with the degree of success depending on the condition of the stump. Elms attacked by phloem necrosis become dory rapidly and were readily burned during the extended drought in the late autumn of 1946.

In 5 gallon paint buckets or in airplane wing gas tanks a 4 foot length of $\frac{3}{8}$ inch pipe with a pet cock on the outer end was installed. We experimented with several mixtures, half and half fuel oil and kerosene, fuel oil and drained crankcase oil, which was obtained at local garages, and straight No. 3 fuel oil. In our equipment the last named gave the best results.

The tanks were suspended from tripods or mounted on stools with the pet cock centered above the stump. The flow was regulated so as to drip just enough fuel to maintain a fire, a sort of pilot light. Too heavy a flow resulted in higher flame and costs with no appreciable increase in rate of reduction. The position of the pipe was changed only when the stump was burned through to the ground. The small flame in the depression helped dry out the sides of the stump which would ignite intermittently. On large stumps two burners were used. When

CROSS SECTION of an exceptionally vigorous 16 year old elm that had been watered and had received complete fertilizer from 1936 to 1940 and 14 element fertilizer from 1940 through 1944 is shown at right. In spite of this care, it was a victim.



burning was completed, any side roots extending above the ground were chopped off and the hole filled, graded and seeded.

Efficiency of the burner can be increased by placing a sheet metal shield around or at least on the windward side of the stump. The shield will permit safe burning of stumps in the close proximity of evergreens and deciduous shrubs.

The cost of removal by burning ranged from 80 cents to \$4.50 a tree. In the latter instances, a part of the cost was chargeable to the education of inquisitive students.

If any of the several hundred elms remaining on the campus give promise of being resistant to phloem necrosis, clones from them will be developed for future planting stock. At present, resistant stock appears to offer the best solution to the disease and it will still be an asset if preventive or control measures are developed. In the meantime, a strict sanitation program of removal and spraying is being continued.

As for the future, Miami will continue diversified planting, the policy that has been the salvation of her beautiful campus in the past.

HOW TO SELECT ROOM FURNISHINGS

ROSALIE S. GODFREY

Business Director of Residence Halls
Associate Professor of Home Economics
University of Texas

THOSE PLANNING FOR STUDENT housing have a great responsibility because residence halls must be functional, safe and attractive and because, in most instances, residence halls are self supporting and unless carefully planned may be costly owing to poor materials used or to changes needed in order to make them practical.

Furniture of the type, style and construction usually available for the better permanent residence halls is scarce or still off the market. Furniture manufacturers have been handicapped by lack of labor and shortages of material. Metals, well seasoned wood, paints, lacquers and miscellaneous finishes, machinery for manufacturing, and parts, such as screws, nails and glides, are still scarce and expensive.

The lack of furniture usually available, the untried new materials coming on the market and the new methods of construction employed for both old and new materials slow up selection and make caution essential.

The most successful student rooms are those that meet the needs of the user, are attractive and comfortable and, at the same time, are economical to maintain. Furniture in student rooms receives hard wear as it is used not only by the occupants but by their friends who congregate there.

It is essential that the building plans for a new residence hall and the plans for furnishing, equipping, operating and maintaining it be developed together by people experienced in the various phases represented.

In the initial planning for student rooms the following points should be determined: (1) number to occupy the room, (2) use of the room, (3) pieces of furniture and furnishings to be supplied and type, whether movable or built-in, (4) character and size of room, (5) scheme for care of room, (6) rental rates.

Policies concerning care of rooms and the furniture and furnishings to be provided should be adopted before building and furnishing plans are developed. Whether the rooms are to have student care only or to be given weekly, semiweekly or daily service by the management affects the selection of the interior finishes of the rooms as well as the furniture and furnishings.

It is common practice for the owner to provide such furniture as beds (including springs and mattresses), desks, bookcases, study chairs, chests of drawers, easy chairs, mirrors and wastebaskets.

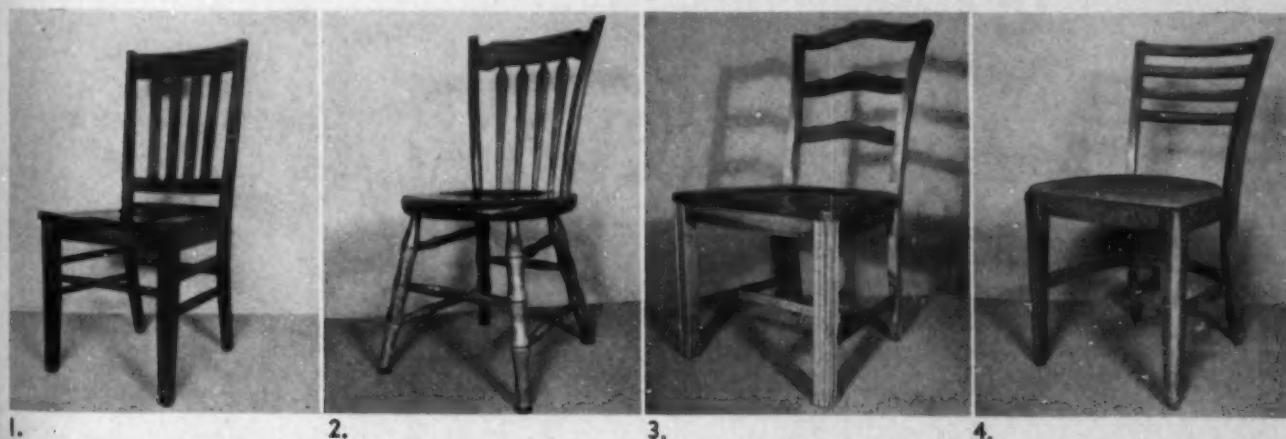
In order to control vermin, protect mattresses and ensure sanitary condi-

tions, many colleges and universities provide sheets, pillowcases, mattress protectors, bedspreads and blankets.

Some institutions furnish such items as draperies, glass curtains, rugs, dresser scarves, hand towels and face towels.

Whether certain pieces of furniture are movable or built in depends partially upon building plans and costs. There are certain desirable features about each type. The movable furniture used in the better residence halls is purchased from manufacturers who employ good cabinetmakers while often the built-in furniture for the same class of hall is made in mills where cabinetwork is not done or where the volume needed is not great enough to justify its use. Great care must be exercised, therefore, to see that built-in furniture is made of well seasoned wood, is well constructed and finished and is not too expensive.

The desirability of built-in furniture is that it (1) does not take up floor space, (2) eliminates moving of furniture by occupants (desirable from the point of view of the management) and (3) permits the floor to be cleaned more easily. Fewer exposed surfaces to be refinished on built-in furniture is not an asset unless the top is not exposed since it is the top that receives the wear on both built-in

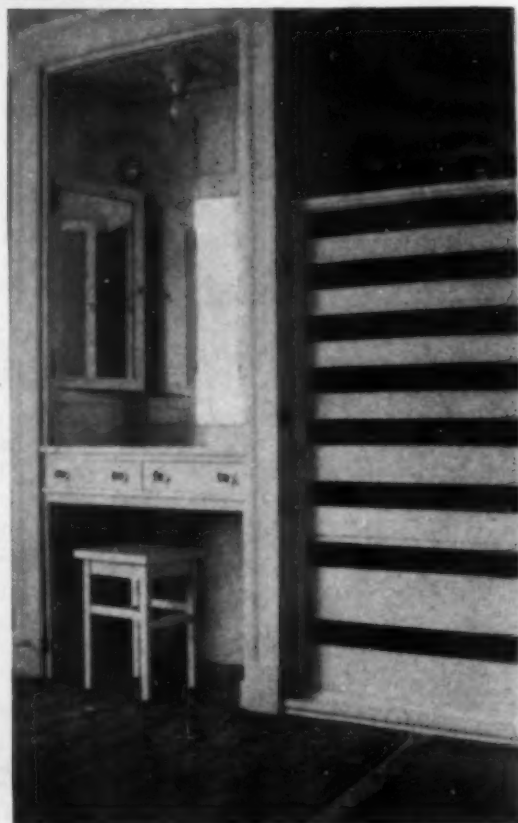


CHAIRS pictured above represent many years of service at the University of Texas. 1. Student room

chair. 2, 3 and 4. Dining room chairs in use eight years, five years and four and a half years, respectively.



ABOVE: Built-in chest of drawers, Robert's Hall, residence for men at the University of Texas. **RIGHT:** Built-in drawers at one side of a recessed built-in dressing table. Good material and construction and an appropriate, durable and easily reparable finish are points to check in selection of built-in furniture.



and movable pieces. Although built-in furniture saves floor space in individual rooms, it does not save cubage because building space must be allowed for it.

The undesirable features are (1) cost, (2) questionable construction, (3) lack of flexibility of arrangement at seasonal times or to satisfy individual preferences and (4) difficulty of refinishing, which must be done in the rooms.

The pieces most often built in are chests of drawers, bookshelves and cabinets. Built-in beds are not recommended for residence halls.

CHESTS OF DRAWERS

Chests of drawer may be either built in or movable. Regardless of policy, it is essential that the material and construction be good, with drawers, if wood, dovetailed, preferably front and back, and that the finish be appropriate, durable and easily repaired. If rooms are double, either one large chest or two small ones may be provided. It is more costly to provide two small chests than one large one because two pieces of furniture, though small, cost more than one larger piece and require more floor space,

which may increase the cubage of the building.

Chests may be built as a part of a closet. Usually with a chest of this type, a dressing table or dresser is provided to supply a surface for toilet articles, photographs and the numerous things students find to adorn such surfaces. Built-in chests are considered a part of the building; movable ones are classified as furniture. There are many designs of movable chests suitable for use in student rooms.

STUDY DESKS, BOOKSHELVES

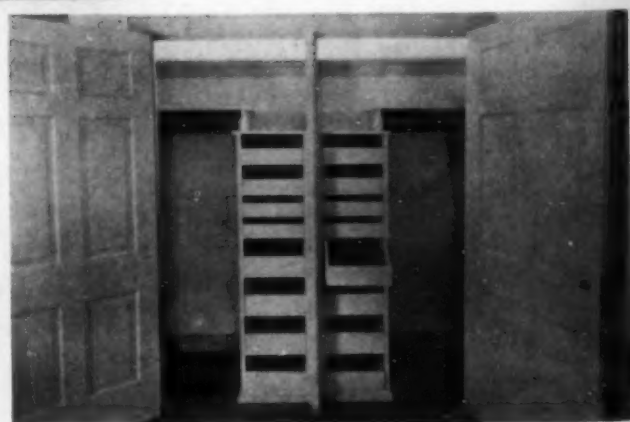
Adequate desk space for each occupant is essential. This may be provided in a double room by using two single desks or one double desk. Two single desks cost more than one double desk even though the double desk provides as much working area per person as do the single ones.

Bookcases built in at the side of the desks are usable and economical. Desks of the same material, size and design without the bookshelves cost little less than those with shelves. In fact, the difference is so small that it is difficult to procure serviceable bookshelves for the amount saved. A divider can be used to separate working areas, on the desk top, to mount the lamp and to provide support for books. While a desirable feature, this may necessitate removing the top to move the desk through the door of the room, since the shortest measurement on the desk is from the top of the divider to the floor. This distance governs the size of the room opening through which the desk can pass.

BEDS

Beds may be of metal or of wood, single decked preferably, 3 feet 3 inches wide. When wooden beds are used it has been found satisfactory to omit wooden side rails and to use

RIGHT: Chest of drawers built in as part of a closet. Usually, with a chest of this type, a dressing table or dresser is provided.



RIGHT: Double room, Asenath Carrother's Dormitory, University of Texas. This setting for pleasant living is not the result of chance but of a plan whereby comfort of occupants and harmony with the architecture were guides in selecting furnishings.



LEFT: Single room, Jessie Andrews Dormitory. Here again, venetian blinds are used in the window treatment, for they have been found desirable in Texas' warmer climate where windows are open a large part of the year and air and privacy are essential.



metal side rails that can be purchased as a part of the springs. When this is done the spring manufacturer furnishes the bed manufacturer with metal locks which are installed on the bed posts and into which the metal side rails fasten. This scheme adds rigidity and durability and does not affect the appearance of the bed after it is made.

STUDY CHAIRS

Study chairs are perhaps the most difficult item to select as the chair

must be comfortable for all users and, at the same time, reasonably priced, durable, attractive and suitable to the scheme for furnishing the room. A slightly lighter weight, less durable chair may be used in women's residence halls than in men's.

EASY CHAIRS

Easy chairs for student rooms should be well constructed and designed so that renovating is simple.

Student room furniture is not used by many different people during the

day and usually only a few pieces are upholstered, so less time is needed in selecting replacement fabrics as these pieces do not have to fit into a large decorative scheme. Although not used as hard as the furniture in a lounge room, the easy chair in a student room receives heavy wear. Consequently, less expensive shorter lived fabrics may be used on it.

The selection of an easy chair with removable seat and back makes the reupholstery process comparatively simple and economical and requires

a relatively small amount of fabric. The selection of less durable fabrics and of a style of chair that lessens labor costs and requires a minimum amount of fabric permits reupholstering oftener. This is desirable in student rooms as a freshly upholstered easy chair adds to the appearance of a room and tends to set a standard for the use of that room as does all well kept furniture.

WINDOW TREATMENT

Policies for window treatment vary. Venetian blinds or window shades are usually provided as a part of the building. Venetian blinds are particularly desirable in the warmer climates when the windows are open a large part of the year and both air and privacy are essential.

Sometimes the owner and sometimes the occupants of the rooms supply glass curtains and draperies. In some instances in which venetian blinds are used, however, neither glass curtains nor draperies are supplied by the owner and installation by the

occupant is not permitted. This prohibition is made to keep material over which the management has no control from being installed in the rooms, to keep the occupants from increasing their living costs by feeling these items must be furnished, to keep the windows uniform in appearance from the outside and the bedroom from being unattractive because of unwise selections.

After policies have been determined, it is the responsibility of the planners to make layouts suitable to the architecture and use of the room so that when completed the room will be attractive, comfortable and functional; to select furniture and furnishings of pleasing style and good construction so that replacements will be at a minimum; to write definite, easily understood, accurate specifications so bidders will understand the needs of the purchaser, and to check delivery to see that the specifications have been met satisfactorily.

Accurate specifications are essential. Their purpose is to define, explain and

clarify the wishes of the purchaser in order to carry out, at lowest cost, the plans made. If accurately and intelligently done, they help to rule out bidders unable to furnish or uninterested in supplying the materials desired, to save time and confusion by eliminating questions, to aid the bidder in offering only that in which the purchaser is interested and to set standards for relationships between the institution and firms concerned.

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CONTINUING STUDY OF OPERATING PRACTICE

Periodically, *College and University Business* asks a selected group of readers about a specific operating technic or method and publishes the findings for the guidance of readers in measuring their own methods.

WHAT ABOUT ACCOUNTING PROCEDURES?

THE RESULTS OF A RECENT SURVEY of accounting procedures made by COLLEGE and UNIVERSITY BUSINESS in 72 colleges in 32 states reveals an increasing reliance on accounting machines to handle the load resulting from overflowing enrollments.

A study of the surveyed institutions on the basis of their enrollments shows that in institutions of 500 or fewer students 25 per cent have accounting machines; of that group 40 per cent plan to add additional pieces of equipment. The group that plans to add such equipment constitutes 10 per cent of all institutions reporting in this enrollment category. In addition, 10 per cent of the institutions of this size not

now having such equipment are planning to make accounting machine installations.

In institutions reporting enrollments of from 500 to 1000, 25 per cent have accounting machines and 12 per cent plan to add to present equipment. Another 25 per cent not now using machines will make an installation relatively soon.

Forty per cent of the institutions with enrollments of from 1000 to 5000 do machine accounting, and 33 per cent plan to add to their present equipment. Of the institutions of this size, 10 per cent not now using accounting machine equipment plan to make installations.

Of the colleges with enrollments of more than 5000, 75 per cent of those reporting have accounting machines and 75 per cent mean to add to present equipment. Fifty per cent of all reporting institutions in this sized group indicate planned expansion of accounting machine facilities. In addition, 25 per cent in this enrollment category that never have owned such equipment are planning to install it. With one exception, all institutions reporting the use of the punch card system have an enrollment of more than 5000.

An average of three persons was required for bookkeeping detail in 1939-40 in these colleges and univer-

sities whereas six persons are required to handle present loads of bookkeeping and accounting work.

There is a definite correlation between the volume of work and the use of accounting and bookkeeping machines. In the number of requisitions or purchase orders posted monthly, the median for manual bookkeeping is 100 postings; for bookkeeping machines, 495. In the number of monthly postings of expenditure invoices or vouchers, the median for manual postings is 250 monthly; for bookkeeping machine installations, 600. The median number of budget appropriations or allotment postings monthly is 50 for manual operation and 100 for bookkeeping. In the case of monthly income postings, the average for the manual system is 250; for the bookkeeping machine system, 600.

Seventy-seven per cent of the institutions report an average of 328 pay roll checks made out on a monthly basis; 36 per cent report payment on a semimonthly basis with 121 pay roll checks as an average; 23 per cent also make weekly pay rolls with an average of 77 checks involved. It must be realized that in some cases institutions handle pay roll on all three periods, hence there is some duplication among the pay roll periods although the number of pay roll checks made out for each period may be considered as valid averages in terms of volume for each specific period.

Tuition, board and room charges constitute the overwhelming percentage of postings made of student accounts, although a heavy percentage also posts student accounts for laboratory fees, library fees, breakage fees and miscellaneous fees.

The accompanying table shows how bookkeeping and punch card systems are utilized in handling the bookkeeping detail of the business office.

In reviewing the number of active funds accounted for, it is revealed that 32 per cent of the institutions handle an average of six separate accounts for the federal government; 45 per cent handle an average of 12 accounts for state governments; 60 per cent handle an average of 35 accounts in connection with local operations.

Thirty-five per cent enter encumbrances and liquidations to the budget ledger; 65 per cent do not.

To a query regarding whether the business office furnishes department heads with statements of their accounts, 33 per cent of the colleges

HOW BOOKKEEPING AND PUNCH CARD SYSTEMS ARE UTILIZED

| Purpose | Per Cent Colleges Using Book-keeping Machines | Punched Card |
|---------------------------|---|--------------|
| General Acc't | | |
| Budget ledger..... | 65 | 75 |
| Income ledger..... | 81 | 100 |
| Vouchers..... | 81 | 100 |
| Stores accounts..... | 51 | 50 |
| Pay rolls..... | 73 | 100 |
| Job costs..... | 4 | 75 |
| Fund controls..... | 61 | 75 |
| Investments..... | 34 | 25 |
| Student accounts..... | 80 | 75 |
| Others..... | 22 | 75 |
| Other Depts. | | |
| Hospital..... | 30 | 75 |
| Farm..... | 17 | 25 |
| Athletics..... | 61 | 75 |
| Supply store..... | 61 | 50 |
| Residences..... | 70 | 100 |
| Dining halls, etc..... | 73 | 75 |
| Statistics | | |
| Registration, alumni..... | 17 | 100 |
| Research..... | 17 | 25 |

reporting furnish such statements in detail, 39 per cent in totals by accounts. These statements of accounts for department heads are furnished monthly in 52 per cent of the colleges; 36 per cent indicate that other inter-

vals are maintained. The colleges that furnish department heads with monthly statements of their accounts do so on the tenth of the succeeding month.

In answer to a question as to how often budget expenditures are summarized by object (subaccount) classifications, 50 per cent report that this information is obtained monthly, 20 per cent quarterly, 30 per cent on an annual basis.

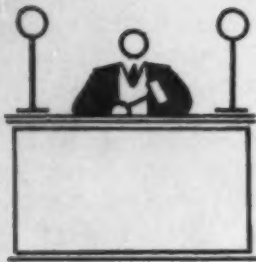
One may conclude from this survey that the desire to install and operate bookkeeping machine installations is in direct ratio to the volume of detail handled; furthermore, that such machines are being utilized to provide information that it would be either almost impossible or uneconomical to procure with only a manual system in operation.

Typical of the comments of institutions utilizing machine accounting systems is the observation of Don C. Wheaton, treasurer of Sweet Briar College (450 students). Mr. Wheaton says: "Our bookkeeping machine is most satisfactory. By its use we keep *more* and *better* records with the same personnel as with the old pen and ink system. We know that the machine paid for itself the first year and has saved the college money ever since."

SALARY SCALE INCREASES IN 155 COLLEGES, APRIL 1947

C. W. HOFF, Finance Secretary, University of Omaha

| | FACULTY AND ADM. OFFICERS | | OFFICE AND CLERICAL STAFF | | CUSTODIAL AND MAINTENANCE | |
|-------------------------------------|---|---|---|---|---|---|
| | 1946-47 % Higher Than 1940-41 | Estimate 1947-48 % Higher Than 1943-47 | 1946-47 % Higher Than 1940-41 | Estimate 1947-48 % Higher Than 1946-47 | 1946-47 % Higher Than 1940-41 | Estimate 1947-48 % Higher Than 1946-47 |
| STATE UNIVERSITIES (40) | | | | | | |
| Lowest | 15.0 | 5.0 | 10.0 | 5.0 | 10.0 | 5.0 |
| Highest | 90.0 | 25.0 | 75.0 | 25.0 | 105.0 | 20.0 |
| Average | 27.28 | 11.24 | 31.0 | 10.81 | 34.73 | 10.38 |
| STATE TEACHERS COLLEGES (16) | | | | | | |
| Lowest | 7.0 | 5.00 | 7.0 | 5.00 | 7.0 | 5.0 |
| Highest | 50.0 | 22.7 | 50.0 | 20.0 | 60.0 | 20.0 |
| Average | 22.08 | 16.38 | 27.12 | 12.07 | 26.87 | 12.07 |
| MUNICIPAL UNIVERSITIES (8) | | | | | | |
| Lowest | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 | 3.0 |
| Highest | 45.0 | 10.0 | 35.0 | 10.0 | 60.0 | 5.0 |
| Average | 26.83 | 6.25 | 25.84 | 5.0 | 30.16 | 4.33 |
| PRIVATE & ENDOWED (91) | | | | | | |
| Lowest | 6.0 | 5.00 | 10.0 | 5.0 | 10.0 | 2.0 |
| Highest | 250.0 | 40.00 | 200.0 | 35.0 | 100.0 | 40.0 |
| Average | 30.46 | 12.84 | 34.78 | 10.06 | 39.56 | 10.32 |
| TOTAL REPORTING (155) | | | | | | |
| Lowest | 6.0 | 5.00 | 7.00 | 5.00 | 7.0 | 2.0 |
| Highest | 250.0 | 40.00 | 200.00 | 35.00 | 105.0 | 40.0 |
| Average | 28.63 | 12.49 | 33.34 | 10.36 | 37.26 | 10.40 |



Recent Decisions on CHARITABLE TRUSTS

M. M. CHAMBERS

American Council on Education

"CHARITABLE TRUST" IS A TECHNICAL legal term. Sharply distinguished from ordinary trusts for the sole benefit of specifically designated persons, which fall within the well known rule against perpetuities, valid charitable trusts may be perpetual.

WHAT IS CHARITABLE TRUST?

The oft-quoted words of Justice Gray in a Massachusetts case of 1867 indicate a charitable trust is one whose assets or income are to be used "consistently with existing laws, for the benefit of an *indefinite* number of persons, either by . . . education or religion, or by relieving their bodies from disease, . . . or by assisting them to establish themselves in life; or by creating or maintaining public buildings or works, or by otherwise lessening the burdens of government."

Charitable trusts functioning today include scores of great educational and charitable foundations; hundreds of nonprofit, privately controlled schools, colleges and universities; thousands of churches, hospitals, orphanages, homes for the aged and related charities innumerable. The trust assets of such an institution often constitute not merely a single trust but an agglomeration of charitable trusts set up by different donors at different times for special purposes. Even the tax supported state and municipal institutions are almost invariably trustees of some charitable trusts and conduits for others. A good comprehension of the charitable trust is quite essential to an understanding of how higher education is supported and managed.

Justice Gray's definition is not greatly different from the wording of the famed Statute of 43 Elizabeth (1602), an act of Parliament which has sometimes been erroneously hailed as the original basis of the law of charities. In many early American cases the courts looked first to see whether or not the Statute of Elizabeth had been adopted as a part of the law of the state concerned. This issue no

longer arises except rarely, because the theory is now practically universal that the recognition and superintendence of charitable trusts is a power inherent in the courts of equity and not dependent upon any statute. The supreme court of Texas added its voice to the enunciation of this doctrine in 1946, an event of some interest because Texas jurisprudence has some admixture of Spanish backgrounds as well as the Anglo-Saxon heritage.

The main issue in the case was the validity of a trust created by the will of a testatrix who did not specify any particular charities or classes of charities but unequivocally stated an intent that her estate of approximately \$1,000,000 should become a perpetual charitable trust, with all its income paid to such charities as the trustee bank might designate, after the death of certain persons named as individual recipients of life incomes. The terms of the will were contested as too vague and uncertain to create a valid charitable trust. Indeed they do give the broadest possible discretion to the trustee, but the court sustained the trust, with only Justice Slatton dissenting. His view that "a mere limitation to charity generally, or to charitable uses, is too indefinite" was not shared by any of his colleagues.¹

CHOOSING USES, BENEFICIARIES

In a New Jersey case the donor was only a shade more specific than the testatrix in the Texas case. He named the classes of charities included in Justice Gray's classic definition but left his trustees entirely free to choose among them. In 1935 he set up the Davella Mills Foundation as a New Jersey charitable corporation and gave it a large gift. At his death in 1944 he left his residuary estate to the foundation, "with full power and authority, within the limits imposed by its certificate of incorporation, of se-

lecting the objects of my bounty." The will was sustained as creating a valid charitable trust.

One phase of the attack was directed against a grant of \$300,000 made by the foundation in 1945 to incorporate and finance the International Film Foundation, Inc., whose purpose was "for the maintenance of world peace by the promotion of better understanding between peoples of different religions, races and nations." This is a charitable purpose, said the court, and it is immaterial that the director of the film foundation is paid a salary of \$20,000 a year unless evidence appears that his services are not worth that compensation. Even if the film foundation were not charitable, the fact would be of no avail to the heirs of the donor to the Mills Foundation, for a valid charitable trust is not destroyed by maladministration of its funds. Instead, the court of equity having jurisdiction will correct the maladministration by appointing new trustees or taking other suitable steps.²

Similar principles are illustrated in an Indiana case wherein a decedent who had become wealthy in the course of a business career in Crawfordsville and Montgomery County bequeathed his estate to a bank in trust for general charitable purposes within that city and county, "the objects . . . to be limited only by the good judgment of my trustee; . . . my intention being that the uses shall in general be for public benefit, including relief of worthy poor or distressed persons, for education, religion and general charitable purposes. . . ."

The will also suggested \$2000 a year as a reasonable minimum annual compensation for the trustee and authorized the trustee to bar any prospective beneficiary who made more than one simple request for a grant. As against the attack of the donor's

¹Boyd et al. v. Frost National Bank et al., (Tex.), 196 S. W. 2d 497 (1946).

²Mills et al. v. Montclair Trust Company et al., (N. J. Chancery), 49 A. 2d 889 (1946).

heirs, the validity of the trust was upheld and the court explicitly accepted the duty of "seeing that the conditions imposed by the testator are carried out according to his purposes." For example, "Should it hereafter appear that an allowance to the trustee of \$2000 a year, under changing conditions, is excessive or inadequate, the administering court will make such allowances as are fair and reasonable."³

A Florida testatrix left her residuary estate to her executor with direction to use it "for the education and advancement of the learning of deserving young men or young women." She authorized him to determine the number and select the persons who would become beneficiaries and to pay out the fund in whatever manner he deemed best for the purpose; the trust would terminate whenever the corpus had become exhausted. Her collateral heirs unsuccessfully challenged the trust as too indefinite to be valid, but it was unanimously upheld by the supreme court of Florida.⁴

EFFECTS OF PASSAGE OF TIME

Charitable trusts are often created in such manner that their operation may be deferred for many years as, for example, where the charitable or educational institution is named as "remainderman" to receive the trust only after the death of one or more persons for whom the donor wished to provide and for whose sole benefit the property constitutes a private noncharitable trust as long as they live.

Such a trust was created in 1922 for the ultimate benefit of the Asheville Normal and Associated Schools, consisting of some four unincorporated institutions all controlled by the incorporated Woman's Board of Home Missions of the Presbyterian Church in the U. S. A., subsequently succeeded by the Board of National Missions of the same church.

The donor stipulated that if the Asheville institutions were not in existence when the trust became operative, then the fund should go to Ohio Wesleyan University as endowment for its department of chemistry. The issue did not arise until 1945. By that time three of the four Asheville schools had been discontinued but the fourth unit, the Asheville Farm School,

was being operated, in conjunction with a school for girls and a college, under the name of Warren Wilson College and under the same church auspices.

Under these circumstances it appeared clear that despite the changes in organization and nomenclature, Warren Wilson College was in fact serving substantially the same purposes in the same manner as its predecessor, which the donor had intended to aid, namely, a program of Christian education for the youth of the mountain area in western North Carolina as he had observed it. Accordingly, Ohio Wesleyan University could not claim the fund as alternate legatee.

As to the question whether the fact that the Asheville institutions were unincorporated would bar their receipt of the legacy, the court pointed out that when an unincorporated legatee has an incorporated parent organization, a bequest to the former will be upheld as a gift in trust to the latter (in this case the church board).⁵

In cases in which a trust instrument undertakes to specify in detail the exact method by which the charitable intent shall be executed, almost invariably the passing of time and the changing of conditions eventually require some modification of the original plans. This inexorable fact gives rise to the judicial "doctrine of approximation" technically designated by the old Norman-French phrase *cy pres*. Under it the courts of equity, upon finding that a charitable trust has become impossible or impracticable of execution in the exact manner intended, are loathe to declare it to have failed or terminated; instead they look at the general charitable intent underlying the specifics and often authorize such minimum modifications of the benefactor's directions as will enable the trust to survive and serve the same general purpose in a manner as nearly as possible identical with the specifications of the trust instrument.

In 1918 Louis Comfort Tiffany gave by deed of trust to seven trustees his residence and some 62 acres of land in the town of Oyster Bay, N. Y., and securities worth approximately \$1,000,000, to establish and endow an art institute and museum on that site. Later he made other gifts to the in-

stitute and left it a legacy at his death in 1933.

For a dozen years the institute flourished as an art school offering excellent facilities for many students but, owing to the financial stringencies of the 1930's, both its income and the number of students in attendance greatly declined. By 1942 there were only eight students and the buildings were given over for temporary war-time use by the National Defense Research Council. Upon their return to the trustees four years later, a crisis in the history of the institution existed and plans for the future had to be determined.

Upon application to the trustees, the court authorized them to sell the real and personal property formerly in use as an art school, add the proceeds to the capital of the trust and use the income for the support of fellowships for creative work in the fine arts. A particular museum building and chapel could be retained as a memorial to the founder at the discretion of the trustees of the foundation.

Decision was reserved as to the trustees' request for permission to invest in securities other than those approved by statute for savings banks and trustees, as stipulated in the trust instrument, and any and all specific new projects were to be subject to further order of the court.⁶ In this manner the court undertook the task of molding a moribund trust so as to revive its capacity to execute the founder's general charitable intent by methods approximately as nearly as practicable those he had in mind.

We have seen that charitable trusts have important rôles in the affairs of virtually all educational institutions at the college and university level. Recent decisions indicate that so long as the founder's general charitable intent is unmistakable, such a trust is valid even though he does not specify a particular type of charity or provide his trustee with any detailed plan of operation; a valid trust once established becomes an object of superintendence by the courts of equity. If maladministration is brought to their attention, they will intervene to correct it. If specific terms of a trust instrument become impracticable, they will apply the doctrine of *cy pres* and mold them to effectuate the founder's intent under current conditions.

³Hulet et al. v. Crawfordsville Trust Company, (Ind. App.), 69 N. E. 2d 823 (1946).

⁴Miller et al. v. Flowers, (Fla.), 27 So. 2d 667 (1946).

⁵Wachovia Bank and Trust Company v. Board of National Missions of the Presbyterian Church in the U. S. A., 226 N. C. 546, 39 S. E. 2d 621 (1946).

⁶Application of Arms et al., in re Louis Comfort Tiffany Foundation, (N. Y. Sup.), 64 N. Y. S. 2d 693 (1946).

WHAT'S ON THE MENU TODAY?

JOSEPH P. NYE

Assistant Director of Residence Halls
Columbia University

IN THE OVERALL FOOD SERVICE, ONE cannot emphasize too strongly the importance of efficient menu planning and subsequent purchasing. Roughly, half our gross income is expended for the purchase of raw food. This automatically places food planning and production in the No. 1 spot of food service operation and, as such, they should remain uppermost in our minds at all times.

Final proof of the effectiveness of our food service, it seems to me, lies in the financial result at the end of the year, a result that should reflect the policy as outlined by our superiors. A satisfactory operation should be reflected also in students' good will, as indicated by their acceptance of and satisfaction with menus throughout the year.

This point of financial result should be broken down into two categories: those schools with prepaid board and those with a pay-as-you-go method. Under the prepaid system, you must keep prodding yourself for originality and variety in your menus. Where food is served on a cash basis, local competition will keep you wide awake. According to the handbook "Establishing and Operating a Restaurant," recently printed and made available by the U. S. Department of Commerce, "The best menus will be made by the resourceful person who is on the lookout for the new dish, the new recipe, the new idea, the new phrase or the new way."

BASIC STEPS IN PLANNING

There are certain basic steps in achieving good menu planning. In our schools a good menu, through interest and variety, will meet the demands of our students and at the same time keep costs within budget requirements. The writing of each menu

should each time reflect your own best interest in eating. The following steps in menu planning are not necessarily listed in the order of their importance but all are worthy of careful consideration.

1. Be alone in an atmosphere conducive to concentration and be surrounded with ideas — cookbooks, clippings, previous menus of yours and especially of others. Under these circumstances you can devote all your time and energy to the task at hand: writing a good menu. Too often in our dining rooms I have seen the people responsible for our menus concentrating on the task but being interrupted to handle some other problem, usually a minor one. The result is loss of time and wasted effort and, what is most important, an unsatisfactory menu. Go hide in a closet if you have to, but *be alone* when planning your menus.

2. Prepare your menus for a certain period of time, such as one week or ten days. Some authorities recommend a three week cycle. In this manner you assure yourself of variety. Menus, however, should be flexible enough to include leftovers, should there be any. You should be prepared also to make changes desirable because of sudden market fluctuations.

This kind of program will help you plan a good distribution of work in your kitchen, an important factor in the production of the food and also in maintaining good morale in your kitchen staff.

It is equally important to know the possibilities and limitations of your kitchen equipment. How much oven space is available? What is your refrigeration capacity? Thinking of all this while writing your menu will increase the efficiency of the entire kitchen.

3. Know approximately the cost of the items you are putting on the menu. This knowledge ahead of time

may save you the embarrassment of having too high a food cost later. This suggestion presupposes a knowledge of market conditions and also a certain mathematical ability. You cannot sidetrack some simple arithmetic in this type of job.

4. All important in menu planning is the factor of nutrition. It is the very *why* of eating. The consuming of properly balanced meals is good health insurance. Let us be sure that our menus provide such meals. The problem, then, is to translate this correct theory into practical application so that students will eat what they should and will *want* to eat what they should.

VETERANS KNOW THEIR VITAMINS

One thing has been encouraging. The returning veterans, in general, have larger appetites and eat more wisely than did the majority of our prewar students. Two glasses of milk on a tray, even three or four, is a common occurrence and salads and vegetables are gaining in popularity.

No little thanks is due the government for the groundwork laid in its educational program stressing the seven basic food groups. The full impact of this program is yet to be felt.

5. Related to the preceding thought are the factors of color, flavor, texture and form combinations. With practically all schools in the country on at least a partial self service basis, these desirable characteristics grow in stature. Visualize your menu and think of how your counter will look with the food on display. Do not forget the merchandising possibilities of holidays and such special days as Halloween, St. Patrick's Day and similar occasions.

6. How can you best take care of leftover foods? This factor carries extreme importance in determining the final result of the food operation. Suffice to say that leftovers should be held to a minimum. A daily perish-

From an address given at the College Food Directors' Section of the National Restaurant Association at annual convention, March 1947.

able inventory should be taken to absorb such food into the menu and to be certain also that no leftover food is stored too long.

One specific suggestion on this topic is to own a refrigerator freezing unit. Save your meat trimmings, chicken livers and such items and keep them frozen until you have enough of one kind on hand to put it on the menu.

7. Know the capabilities of your cooks. It is far better to serve a delicious beef stew than a poor lobster à la Newburg. Food should taste as good as it looks and as good as it sounds on the menu.

PURCHASING INTELLIGENTLY

Effective college food service calls for intelligent purchasing. Before actually placing the orders we come to what, in my mind, is the most important question: how *much* to buy? Once ordered and received, the food becomes your property and consequently your responsibility. I suggest, therefore, that you use what might be termed an engineering approach. Try to determine in a scientific manner how much to order so that you will have just enough for the meal, and no more. The solution to this problem is your record of past results tempered by current conditions. Check:

1. Meal count for previous year.
2. Meal count for previous week.
3. Special factors, such as weather, increased or decreased enrollment, high or low week-end attendance and relative popularity of items on the menu.

Once the foregoing figures and facts are ascertained, estimate the number of portions you expect to sell. Keep a record of sales and check them to determine the accuracy of your estimates. Often the combination of entrees on a menu is such that the same item might sell twice as much one time as the next. If you have not been doing so, try setting up a chart and estimating your sales. You will discover that you can become amazingly accurate and, too, will feel a sense of satisfaction when you hit the count correctly. One word of caution: you will not be accurate unless you analyze all of the known factors and make an honest effort. In other words, you have to work at it.

Rigid recipe control is a goal for which we should all strive. We should give our kitchen staffs standardized recipes and require their use. In that way we are assured that 50 portions

are prepared if the recipe calls for that amount. The most aggressive and efficient restaurants in this country are now being operated in this manner.

Unfortunately, too many kitchens have cooks who have been doing it their own way for the last ten or twenty years and they are not willing to change now. Much of this is attributable to poor management and it is our responsibility to improve this situation. The practical answer lies in a compromise of some sort, with the aim always set for attainment of 100 per cent control.

The fundamental factor of human relations enters this picture. Have you tried to sell your cook on the idea of using new recipes calling for accurate measurements of ingredients? As a further step in the right direction, check frequently to see that you are obtaining the yield you must have in order to maintain your food cost percentage. Simple arithmetic is called for in connection with this suggestion so, I repeat, become acquainted with figures in order that you will know your costs. The number of people in the restaurant industry, and specifically the college dining rooms, who do not know what their food costs are is absolutely appalling. Don't be in that category!

Having decided how much of an item to buy, the next step is the actual purchase. This should be done on a competitive basis. I recommend having a reasonable number of reputable dealers. I use the word *reasonable* because in these days of expensive handling charges, the dealer will try much harder to do a good job for you if he anticipates a fairly sizable order. You, in turn, will be protected if you have enough dealers in any category to permit your obtaining competitive prices on similar items of comparable quality.

TO MARKET, TO MARKET

A visit to the market area occasionally can be helpful. In addition, when representatives of food firms call on you in your office, grant them the courtesy of an interview. In order to help themselves, they will do their best to help you.

If you are assured of your dealers' reliability, then listen to what they have to recommend. They know their business better than your ever will and, as long as they know you are unyielding on your standards and that your deliveries are checked closely each time as to both quality and correct

weight, they will respect you and pass along suggestions that might work out to your mutual benefit.

If a dealer has made a mistake, let him know about it at once and have the item returned or an allowance made. All firms have surplus, relatively undesirable items they must dispose of, and if you are not vigilant in the receiving department sooner or later you will be given the wilted lettuce or the spoiled grapefruit.

As a general policy, I think it a mistake to carry a large food inventory. Metropolitan institutions have a slight advantage in this respect because of proximity to wholesalers. Frequent deliveries assure freshness of product and less likelihood of spoilage and subsequent waste.

If we know our expenses, we should be able to operate financially as desired. As our various items increase in cost to us, it means more initiative and brain work to think of acceptable, lower priced items. We have all raised our selling prices in the past few years and yet that should be the last step, for the marginal student is likely to pass from a person eating plenty of healthful food to one who is forced to scrimp and, as a result, is more likely to do a poor job in school.

NEVER FEEL SATISFIED

We are all working in various educational institutions throughout the country and we have a definite place in the progress of our students. We should do our part in college and university training to offer the utmost in quality and quantity at the lowest possible cost to the student. By so doing, we are performing a real service and handling our job as it should be handled.

Just a word about new ideas that might help us in our problem of writing a good menu and purchasing food. Frozen foods offer great possibilities as to menu variety throughout the entire year. They help reduce food costs by allowing preparation of an item when the market is favorable.

We must be on the lookout for kitchen equipment that will make food production easier, more efficient and lower in cost. Salaries and wages will remain high for some time to come and better equipment means more efficiency at the same or lower labor cost.

Above all, we should never be completely satisfied. If we have reached that point, we are through.

QUESTIONS AND ANSWERS

Getting Along With Personnel

Question: My biggest problem is that of all administrators: how to get people to do their jobs, completely and on time? This is a job of leadership, the methods and techniques of which I am sure I do not fully understand.—J.W.G., Mo.

ANSWERS: 1. Duties comprising each job must be clearly outlined and adjustment in those duties must be made to meet changing conditions. After this has been done, sufficient qualified personnel should be available to perform the jobs without distracting interruption.

2. To do one's work completely and on time, one should know exactly what is expected of him and when, and monthly and weekly reports should be due the same time each month or week without exception. Miscellaneous emergency jobs should be given to persons not required to meet deadlines that automatically affect the deadlines of other workers.

3. Responsibility for work should be equally divided among all employees and this work, if well done, should be given recognition. Lack of recognition will lead to work haphazardly done because no incentive has been presented other than the expected salary check.

4. Leadership is best developed by responsibility. Divide administrative work: hold the person best qualified for one job responsible.

5. If an employer has a well equipped office staffed with a sufficient number of trained employees who work in cooperation with one another and are happy in their respective jobs, and if each employee understands fully what is expected of him and when it is expected, those jobs will be done completely and on time.

6. Conduct a time and motion survey and do away with wasted energy. A sincere personal interest in employee's problems contributes much to a going concern and establishes leadership.

7. Complete explanation of duties and specific assignment of duties accompanied by an indication of why the work on each desk is important in itself and also of consequence to each

other desk, *i.e.* have each employee aware of what occurs when his or her work is not done accurately or on time. Provide adequate and qualified *full time* personnel (not students) for each department so that turnover will be held to a minimum; *e.g.* either a single man or a married man with dependents can be relied upon to take his job more seriously than can student employees.

8. There should be cooperation among employees. Since everyone's job is related in some way to all the other jobs, I think that instead of working as a secret agent, each one should be kept informed on the current business, enough to be able to answer questions regarding *anything* intelligently.

(This question was circulated among employees at the University of Omaha by Charles Hoff, business officer, and was answered by them.—ED.)

Dormitory Rentals

Question: Part III, Chapter 3, Handbook of Information, Title V Housing, provides under Section VII that if it is the policy of an educational institution in its own dormitories not to charge rent during vacation periods, that practice may be followed in Mead-Lanham dormitory projects but that this policy is not extended to family dwelling units.

We do not have a summer session and, while some veterans and their wives plan to occupy their apartments in Federal Public Housing Authority projects, several will be leaving to study elsewhere during the summer or to take jobs for that period. To charge for three months' rental when the apartments are vacant does not seem reasonable and, I am sure, will meet with strong objections from the veterans.

I shall be happy to have this propounded to any expert on federal housing in our profession who may have an answer.—B.P., Minn.

ANSWER: 1. I am not sure that I understand the problem as it is presented. Section VIII, Part III, Chapter 3 of the Handbook of Information, Title V Housing, does provide that if the policy of an educational institution in its own dormitories is not to charge rents during vacation period, that practice may be followed in Mead-Lanham dormitory projects but that this policy is not extended to family dwelling units. It is my interpretation that this refers to those short vacation periods in which the student actually

retains possession of the room, that is, his personal effects are not removed. No special ruling seems necessary for the three months' vacation period when the student gives up possession of the room until his return to campus in the fall.

This policy does not apply to the family dwelling units and during short vacation periods; rental must be charged if the family retains control of the unit. If, however, the unit is given up during the summer vacation, remains vacant and no other qualified person wishes to occupy it, I believe the school would not be expected to report any income or to charge the student. I cannot believe that it is the intention of the F.P.H.A. to insist that a student should pay rent for a house during the summer months when he is not occupying the facilities. Neither would I expect the student to retain control of the unit during this period.

It seems to me that the F.P.H.A., in this instance, has followed practices common in the rental of family dwellings.—HERBERT O. FARBER, *assistant to the comptroller, University of Illinois.*

ANSWER: 2. The problem of summer vacancies in F.P.H.A. apartments will not come up at Purdue, at least during 1947. We shall have some tenants who will be leaving for the summer months but we shall assign sublessees to the units. Our construction has proceeded so slowly and our demand is so great that we can make up quite a list of sublessees from the backlog of applications.

The problem may come up by the summer of 1948 and I would be willing to meet with any group that proposes to draft a recommendation to the federal government on how the vacancies might be handled. For the immediate future, however, I feel that the regulation is a good one since we certainly do not want someone holding an apartment and not occupying it when so many people are without housing.—DR. R. B. STEWART, *vice president and controller, Purdue University.*

NEWS

*Billion a Year for Higher Education . . . Tuition Rises Average 22 to 29% . . .
Veterans' Housing Controls Modified . . . Study Government Support of Higher
Education . . . Progressive Admission Plan . . . Faculty Salary Rises Inadequate*

Tuition Charges Show 29 per Cent Rise Over 1940 Level

Student fees, exclusive of those paid for living expenses, have increased since 1940 from 11 per cent in privately controlled schools of business administration to 56 per cent in schools of law in publicly controlled universities, according to an estimate made by George F. Zook, chairman of the President's Commission on Higher Education.

The study of changes in student fees is a part of the investigations conducted for the President's commission by the U. S. Office of Education and four cooperating councils: the American Council on Education, the American Council of Learned Societies, the National Research Council, and the Social Science Research Council.

Liberal arts colleges have, on the average, increased their student fees by 29 per cent in private institutions and 22 per cent in those publicly controlled. The greatest increase in tuition fees for professional education has occurred in fields in which such charges have been traditionally high, medicine, dentistry, law and engineering. This rise has occurred in both public and private institutions.

Additional fees charged students living within the state have been increased proportionately less in tax-supported institutions than those charged students not living within the state. The average tuition and other fees charged out-of-state students is still more than twice as much as must be paid by in-state students.

The increase in student fees is also shown in the per cent of the total cost of higher education borne by the student. In 1940 it was only 38.5 per cent; now it is 56.2 per cent. For all

types of institutions the fees paid by the Veterans Administration for veterans attending college are 53 per cent of the total income from students.

V.A. Clarifies Policy on Graduate Study

Although it is difficult to establish a clear-cut policy regarding V.A. payments for expenses incurred in graduate study, the following general policy will apply: The Veterans Administration will pay all fixed and established fees charged nonveterans, such as the printing of a thesis abstract, binding or microfilming.

Payments will not be made for variable costs which nonveterans themselves pay for such requirements as research materials not supplied by the institution, typing manuscripts or publication of the thesis. When such expenditures are essential to complete the rehabilitation of the veteran under Public Law 16, the Veterans Administration will bear the cost.

\$3,000,000 Allowed for Temporary Facilities

Although the Senate appropriations committee had turned down the request for \$20,000,000 for F.W.A. to provide temporary educational facilities, other than housing, for colleges and universities enrolling veterans, the Senate included the full amount in the second deficiency appropriations passed on May 16.

The House committee had not included the appropriation, but the joint committee agreed to include \$3,000,000. This amount will be helpful but it will provide for only a small portion of the 12,000,000 square feet of floor space which the U. S. Office of Education has certified as needed.

Higher Education Expenditures Hit Billion Dollar Mark

By HELEN C. BROWN
Washington Correspondent

For the first time in history, the total annual educational and general expenditures for higher education exceed one billion dollars, according to a study made for the President's Commission on Higher Education by the U. S. Office of Education. The estimate, made in March and April 1947, for the current academic year, is \$1,005,542,000. Of this total, publicly controlled institutions spent \$525,848,000 and privately controlled, \$479,694,000.

Expenditure for resident instruction was \$494,256,000; for operation and maintenance of physical plant, \$154,882,000; for other general and educational expenditures, including libraries, organized research if separately budgeted, extension services, organized activities related to instruction and items not separately classified if related to educational services, \$356,404,000.

General and educational expenditures for higher education in 1939 was \$521,989,757; in 1943-44 it was \$656,801,819. Thus the total expenditure for higher education this year, exclusive of capital outlay, is almost double that of 1939-40 and more than 50 per cent above 1943-44.

These figures of increasing expenditures are, however, in interesting contrast to the proportion of our gross national product spent for higher education. In 1932, 66 per cent of our total expenditure for goods and services was spent for education on the college and university level; in 1940 it was 57 per cent, and this year it is only 49 per cent. Thus while the

gross expenditure for higher education has increased, the proportionate expenditure has actually decreased.

The survey also made it possible to estimate the impact of rising costs on educational expenditures of colleges and universities. By calculating the cost in relation to enrollment and comparing 1946-47 with the average for 1932-40, there is an inflationary factor of 24 per cent this year above the 1932-40 average. When this inflationary factor is taken into account, the expenditures for higher education in 1946-47 are only about one fourth greater than the amount that would have been expended for the same number of students in the years immediately preceding World War II.

V.A. Procedure for Collection of Overpay of Subsistence

V.A. Circular 48, dated May 14, 1947, outlines the steps for the collection of overpayments of subsistence and describes the cases that should not be referred to the committee on waivers.

Public Law 679 passed in the closing days of the 79th Congress reduced subsistence payments of veterans if their combined earned income and subsistence was in excess of \$175 a month with no dependent, \$200 a month with one or more dependents. Provision was made by the V.A. to continue the full payment to November 1, if such reduction would create a personal hardship, but that such overpayment must be refunded by later reduction from subsistence payments. Other instances of overpayment include the failure to notify the V.A. of interruption of his training.

In all such cases, the V.A. notifies the veteran that his subsistence will be deducted unless he indicates within thirty days from receipt of the letter that a personal hardship will result. If he does so indicate, V.A. will seek to arrange for the refund in a manner that will cause the least hardship.

If the veteran is not now receiving subsistence and does not reply to the letter, V.A. will notify the institution in which he was last enrolled that it should not accept him for further training. The veteran is notified that V.A. will not reinstate his subsistence or pay his tuition until he has made arrangements for a refund.

Would Amend Laws on Surplus Property

Several amendments to existing legislation have been proposed to increase the availability of surplus property to educational institutions. H.R. 3037 would increase the categories of property which may be donated by the army and navy to schools, colleges and universities. The bill would expand the provisions of laws passed in 1930 and 1936, under the authorization of which the armed forces have made donations to educational institutions.

Under the provisions of H.R. 3031, the War Assets Administration would be authorized to give priority to institutions in the disposal of surplus appropriate for schools, classroom or other educational use. It also authorizes the disposal of medical supplies and equipment to medical institutions and hospitals. Provision is made for disposal of real property as well, the price to be determined, as in the original act, on the basis of "any benefit which has accrued or may accrue to the United States." The bill would eliminate the provisions of the act which places public institutions in a position of higher priority than private, nonprofit institutions and would authorize the U. S. Office of Education to certify need for surplus for education.

R.O.T.C. Will Include Junior College Students

R.O.T.C. will be expanded to include students enrolled in junior colleges and the pay of students in advanced R.O.T.C. units will be increased if bills now pending, H.R. 3280 and S. 1196, are enacted into law.

The new pay base for advanced units will be \$1 a day plus "garrison rates" but students in basic R.O.T.C. will continue to receive only "uniforms, arms and equipment." The bill also authorizes the War Department to extend its summer camps to eight weeks.

Increased efforts are also being made to encourage enlistments in the regular army through a proposed bill, H.R. 3303, and its companion, S. 1218, which would drop the age for volunteering to 17 years, provide variable terms of enlistment, assure grade promotions and give a bonus of \$50 for each year of service for those who enlisted for an unspecified period.

Veterans' Housing Controls Modified by Expediter's Office

The Office of the Housing Expediter, in taking over the functions of C.P.A., has issued VHP-1 with its interpretations, supplements 1-5 inclusive, and direction 3, as well as VHP-4 and PR 28.

VHP-1 and its related orders retains specified limitations on construction and repairs in order to advance the veterans' housing program. These restrictions apply to "an arena, stadium or grandstand, including bleachers and other seating arrangements," swimming pools and other building deemed nonessential. The order applies also to the use of fixtures and mechanical equipment.

Supplement 3 lists the types of repair jobs that must be kept within \$400 and \$1000 per job, without the necessity of procuring prior approval. Included in the list are: dormitories, fraternities, college or university laboratories, field houses or classroom buildings, schools and publicly owned buildings used for public purposes. A maximum of \$15,000 a job is retained on structures with a floor space of 10,000 square feet or more.

Direction 3 to VHP-1 authorizes the favorable consideration of applications for construction of elementary and secondary schools and educational facilities required for the veterans' educational program.

VHP-4 restricts the production of cast-iron soil pipe and fittings to that required for veterans' housing. PR 28 describes the circumstances under which RR priority ratings will be issued for essential short supply items.

The Housing Expediter has also announced that applications for Housing Expediter Certificates for surplus war materials and equipment will no longer be accepted.

\$350,000 Center at McMurry

Officials of McMurry College of Abilene, Tex., report that Mrs. J. M. Radford of Abilene will finance the construction of a \$350,000 student life center to house a 100,000 volume library, a chapel or sanctuary and a student social center on the campus. Representing the largest single gift in the school's history, the building will be the largest of five in the current expansion program.

Faculty Salary Increases Don't Equal Cost of Living Rise

The President's Commission on Higher Education has completed, in cooperation with the U. S. Office of Education and several national organizations in higher education, a study of changes in salaries of faculty personnel from 1941-42 to 1947-48.

The per cent of actual increase from 1941-42 to 1946-47 and contemplated increase for 1947-48 over 1946-47 is highest for instructors and decreases with advancing ranks. In privately controlled institutions there is an average increase of 27 per cent in the salaries of instructors from 1941-42 to 1946-47 with a contemplated further increase of 8.5 per cent for 1947-48 over 1946-47 salaries. The percentages for the other ranks are as follows: assistant professors, 21 and 7.5; associate professors, 16 and 6.7; deans, 19 and 5.7.

Publicly controlled institutions, which tend to have had an initially lower average salary, have given somewhat larger increases on a percentage basis. The percentage of increases in 1946-47 over 1941-42 and contemplated further increase for 1947-48 over 1946-47 for each rank is as follows: instructors, 33 and 10.7; assistant professors, 30 and 10.6; associate professors, 27 and 10.3; professors, 24 and 8.4; deans, 20 and 8.3.

In the light of the percentage of increase in the cost of living, these data would indicate that the actual income of faculty members is less now than in 1941-42 in spite of the greater responsibility resulting from the rapid increase in enrollment.

The range of salaries offered to new full time instructors is \$1800 to \$3400 for the academic year, 1947-48. The average is \$2397 in privately controlled institutions, \$2437 in those publicly controlled.

The relatively narrow range between beginning and maximum salaries is shown by contrasting the above averages with those reported as "the average salary to be paid in 1947-48 to the 10 nonadministrative members of the staff who will receive the largest salaries." The range is from \$2750 to \$13,000 in private institutions and from \$2400 to \$8700 in public colleges and universities. But the typical maximum instructional salary, whether calculated on the basis of either the

RIGHT: 1947-48 E.B.A. officers installed at Omaha convention: Front row—H. W. Loman, Penn State, treasurer; G. D. Henderson, Vanderbilt, president; B. C. Ahrens, executive secretary. Back row—H. B. Bentzen, Rev. J. L. Sullivan, C. W. Hoff, vice presidents.



average or the median, is only \$5900 in private institutions and \$5400 in those publicly controlled.

Stanford to Raise Faculty Salaries

Substantial salary rises will be granted many Stanford University faculty members, the second increase in two years.

On September 1 the minimum salary rates for assistant professors will be raised to \$3500 a year, an increase of 16.6 per cent over the 1946 figure and 40 per cent more than the salary in this category in 1945. Instructors who have completed graduate work will get a minimum of \$3000 a year, a 20 per cent rise over last year and a 66 per cent increase over the 1945 schedule. Adjustments in salaries will be made also for many professors and associate professors, particularly if no adjustment in their salaries was made last year.

President Donald B. Tresidder points out there is no maximum salary for any of the professorial ranks and that the rises represent merely the minimum salaries established.

Veterans' Applications Continue

The April 30 report of the Veterans Administration shows that veterans are continuing to apply for certificates of eligibility and entitlement at the rate of 200,000 a month. A total of approximately 6,200,000 have now received their certificates. Since only 2,600,000 have entered training and education, there is a backlog of approximately 2,700,000 who have not yet taken up their option, not counting the reactivating of training of any of the 900,000 now in terminated status.

Progressive Plan of Admissions for Illinois

A progressive plan of admissions has been adopted by the board of trustees of the University of Illinois under which the most qualified students will be given first opportunities to enter but under which restrictions will be lowered at stated intervals to provide for all qualified students up to the capacity of the institution.

The university's present capacity is 26,000 students. After providing for those now enrolled, space will be available for 8100 newcomers for 1947-48, according to a detailed study made by a faculty committee and by educational and administrative officers.

In filling these spaces, there will be no restrictions on entrance of veterans who are residents of Illinois and who are eligible for admission under entrance requirements either as new or as transfer students.

For nonveterans and nonresidents the following progressive admission plan was adopted:

Up to June 15 the registrar will admit as new freshmen nonveterans who are Illinois residents and who rank in the upper 25 per cent of their high school graduating classes; as transfer students, nonveterans who are Illinois residents and who have a 3.5 average in college work in terms of the University of Illinois grading system.

From June 16 to July 15 the restrictions will be broadened to admit, in addition, new freshmen nonveterans who are Illinois residents and in the upper 50 per cent of their high school classes; new freshmen nonresidents in the upper 25 per cent of their high school classes, and nonresident transfer students with not less than a "B" aver-

age in their college work. In the admission of freshmen nonresidents in the upper 25 per cent, first priority will be given children of alumni.

After July 15 admissions will be broadened still further to admit as new freshmen all Illinois residents who are graduates of accredited high schools or otherwise eligible for admission, as well as those who qualify for the first two periods as stated.

Study of Disabled Student Vets Begun

The first intensive investigation of training and readjustment problems of disabled veterans in American colleges and universities has been undertaken by the American Council on Education, according to an announcement by George F. Zook, president. The project, sponsored by the Disabled American Veterans, national organization of those injured in the war, is being conducted under the auspices of a national committee of educators, government officials and representatives of veterans' organizations. Financial support for the study comes from the D.A.V.

Dr. Zook stated, "As of March 31 of this year, there were more than 123,000 disabled veterans enrolled in colleges and universities and technical schools throughout the country under the Rehabilitation Act (Public Law 16). It is important that this study be conducted to determine what provisions have been made to meet their special needs. The results will also serve as a guide to future planning of their programs and the expansion of educational opportunities for them."

Dean E. G. Williamson of Minnesota is in charge of the investigation.

Awards to Michigan Employees

Issuance of service recognition pins to nonteaching members of the University of Michigan staff was approved recently by the board of regents. Sterling silver emblems will be awarded nonacademic employees with ten years of continuous service, gold emblems for those with twenty years and a gold emblem with a sapphire stone for those with thirty years of service. In addition to these awards, authorization was made for awarding an appropriate certificate to all nonacademic employees upon their retirement, provided they have had continuous employment there for ten years or more.

Plan Assistance for Families of Veteran Students

Representatives of national veteran, welfare and educational organizations and governmental agencies have held two conferences under the auspices of the American Council on Education to work out ways through which they can cooperate to meet the needs of the families of veteran students.

The results of a survey made by the A.C.E., in cooperation with these 11 organizations and agencies, show a total of 180,000 children in the families of veterans now enrolled in colleges and universities and this number is increasing at the rate of several thousand every month. Thirty per cent of all student veterans in college are married and 40 per cent of these average 1.27 children per family.

Of the 800 colleges replying to the request for information in which more than 75 per cent of college veteran students are enrolled, more than half report that health, recreation, day care and nursery school facilities are inadequate for veteran families. The Veterans Administration and the institutions assume responsibility for the health of the veteran, but the law does not cover wives and children.

W.A.A. Now Urging Disposal of Surplus

Stating that surplus property is now quickly approaching the "hard-to-sell-level," Administrator Littlejohn has urged zone and regional officials to canvass potential buyers to facilitate disposal. The administrator again calls attention to the discount of 95 per cent of fair value which they can procure on all machine tools, items covered by Regulation 14, and those in long supply.

Eligible educational and public health institutions and instrumentalities should submit purchase orders to the Priorities Claimant Division of the regional W.A.A. office. In the case of surplus on continuous sale, orders from qualified educational and public health institutions will be filled by the Office of General Disposal immediately. Eligible institutions may buy during their priority period as well as during the public offering to non-priority buyers and the discount will apply in both instances.

Subsistence Increases Are Recommended

Hearings on proposed bills to increase subsistence payments to veterans in education and training were completed on May 15 by the Senate committee on labor and public welfare. The House committee resumed its hearings on May 26.

On the basis of a national survey conducted by the American Council on Education, its committee on relationship of higher education to the federal government recommended: An increase of \$7.50 a month for veterans with one dependent; \$10.00 a month for the first child, and \$7.50 a month for each additional child; and an increase in the ceiling of earned income plus subsistence from the present \$175 and \$200 a month to \$250 a month for the veteran with no dependent; \$325 with one dependent, and \$350 a month for those with more than one dependent. These recommendations would increase subsistence payments to veteran students by \$168,000,000 a year: \$130,000,000 for dependents and \$38,000,000 to raise the ceiling.

The House veterans' committee voted May 27 to increase the living allowance for married students from the present \$90 to \$105 a month. Legislation approved by the committee also provides for \$20 monthly allowance for the first child and \$15 for each additional child of married veterans. No increase in the \$65 for single veterans is allowed. Rights to payments are forfeited by any person who advocates overthrow of the government by force or violence or belongs to an organization certified by the FBI as advocating such overthrow.

There is considerable pressure by many groups to get action on the issue during this session of Congress.

Bill Would Strengthen Office of Education

A bill, S. 1239, was introduced into the Senate by Mr. Morse of Oregon on May 6 to "coordinate the educational functions of the federal government in a single agency and to define its organization, powers and duties."

The proposed legislation would make the U. S. Office of Education an independent agency reporting directly to the President who would appoint 11 to a national board.

To Study Effects of Government Support on State Universities

The first comprehensive study of the state universities' rôle in American education and of the effects of government support upon these institutions has been initiated by the Carnegie Corporation of New York.

To conduct the study, the corporation has chosen Dr. Frederic L. Paxson, professor of history at the University of California and winner of a Pulitzer prize for his book, "History of the American Frontier." Dr. Paxson will begin the study in September on a grant of \$12,000 made available through the University of California by the corporation.

Stressing the need for the study, Charles Dollard, vice president of the Carnegie Corporation, declared: "It seems apparent that in the years ahead, the costs of higher education will increasingly be borne by the public treasury, whether state or federal. It seems wise to make a careful examination of the experience of those institutions which have traditionally been entirely dependent upon public funds.

"Some state institutions have been notably successful in developing research and teaching programs of the highest quality. Others seem to have suffered some loss of freedom and quality because of their dependence on tax support and their consequent subjection to some legislative control. The reasons for these differences become important in the light of current trends."

Lawrence Celebrates Centennial

Lawrence College celebrated its centennial early this month with a four day schedule of prominent speakers and a memorial service for its war dead. On June 6 President Emeritus Donald J. Cowling of Carleton College and Dr. Henry M. Wriston, former president of Lawrence College and now president of Brown University, were the featured speakers. On June 7 the cornerstone of a war memorial was laid. This building is the gift of the alumni association. The centennial activities concluded with addresses by the Rev. Frederic C. Lawrence, a grandson of the founder, and Gordon R. Clapp, a Lawrence alumnus of the class of 1927 and now director of T.V.A.

Names in the News

Charles T. Co-been, executive secretary of Marquette University's student union since its organization in 1920, has been appointed business manager of Marquette. He succeeds *Dr. Henry L. Banzhaf* who has retired after continuous service at the Milwaukee school since 1912.

A. F. Rumbaugh has been named business manager of the University of Dubuque, succeeding *John Warner* who resigned to accept the post of business manager at Taylor University, Upland, Ind.



Dr. Samuel D. Marble, professor at West Virginia Wesleyan College, will assume the presidency of Wilmington College August 1. The 32 year old professor will suc-

ceed *Dr. S. A. Watson*, who served as president of the institution the last seven years and resigned to become president of Friends University at Wichita, Kan., August 1.

Walter Stalb has been appointed business manager of City College of New York, succeeding *John B. Goodwin* who resigned to accept a similar position at Creighton University, Omaha.

Philip J. May has been appointed comptroller of Michigan State College, East Lansing.

Dale Welch, president of the University of Dubuque, has accepted appointment as president of Alma College, Alma, Mich. As yet, no successor to Dr. Welch has been named at Dubuque.

Rev. William J. Schlaerth has been appointed president and rector of LeMoyne College, now under construction at Syracuse, N. Y. He was a representative of the Fordham University Press at the time of his new appointment.

Charles DeBruler, assistant purchasing agent at Purdue University since 1933, has been appointed purchasing



agent of Smith College. His appointment becomes effective June 1 when he will succeed *Elsie Leonard*, who is retiring.

Paul Selz, professor of mathematics at Parsons College, Fairfield, Iowa, has been appointed business manager of the institution.

Nelson Glueck will succeed *Julian Morgenstern* as president of Hebrew Union College on July 1 when the latter retires after twenty-six years' service. Dr. Glueck is professor of Bible and of biblical archaeology at the institution.

Col. B. B. Abrams was recently appointed president of Texas Military College at Terrell, Tex. He served as commandant of T.M.C. for a period of six years prior to World War II and was later assigned to the office of the chief of staff in Washington as a congressional liaison officer.

William D. Copeland is president of Rocky Mountain College at Billings, Mont., an institution established recently through the merger of Billings Polytechnic Institute and Intermountain Union College. Dr. Copeland was formerly president of Billings Polytechnic Institute.

Jackson Bird will succeed *Harold J. Cruikshank* as headmaster at Wilkes-Barre Day School, following Mr. Cruikshank's acceptance of the headmastership of University School at Shaker Heights, Cleveland.

Dr. Frederick Burkhardt, associate professor of philosophy at the University of Wisconsin, has been appointed president of Bennington College.

He will assume his new duties on August 1, succeeding *Dr. Lewis Webster Jones* who will leave to become president of the University of Arkansas. Dr. Burkhardt served with the Office of Strategic Services during the war and later was acting chief of the State Department's division of research for Europe.

Logan Morrill, former professor of law at the University of Cincinnati, has been named vice president and treasurer of St. John's College at Annapolis, Md. *John S. Kieffer*, assist-



DIRECTORY OF ASSOCIATIONS

Associations of College and University Business Officers

Central Association

President: T. E. Blackwell, Washington University; vice president: Herbert Watkins, University of Michigan; secretary-treasurer: L. R. Lunden, University of Minnesota.

Executive Committee: C. D. Simmons, University of Texas; Bruce Pollock, Carleton College; Fred W. Ambrose, University of Iowa; Earle C. Albright, Oklahoma A & M College.

Eastern Association

President: R. C. Magrath, University of New Hampshire; vice president: George E. Van Dyke, Syracuse University; secretary-treasurer: Boardman Bump, Mount Holyoke College.

Executive Committee: Samuel F. Agnew, Western Reserve University; Morris Cochran, Brown University; J. G. Vann, North Carolina State College; Don C. Wheaton, Sweet Briar College; Ervin T. Brown, Rollins College.

Convention: Nov. 30-Dec. 2, John Marshall Hotel, Richmond, Va.; University of Richmond, host.

Southern Association

President: George R. Kavanaugh, Berea College; first vice president: W. T. Ingram, Alabama Polytechnic Institute; second vice president: J. R. Anthony, Georgia School of Technology; third vice president: C. B. Markham, Duke University; secretary-treasurer: Gerald D. Henderson, Vanderbilt University.

Executive Committee: E. H. Fisher, Southeastern College; J. B. Paysinger, Columbia College; James F. Blair, Union College; C. L. Springfield, Southwestern College; S. L. Brewster, Howard College.

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Executive Committee: J. O. Lindstrom, University of Oregon; Nelson Wahlstrom, University of Washington; Reverend John Preston, University of San Francisco.

Association of Business Officers in Negro Colleges

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Executive Committee: Don A. Davis, Hampton Institute; Viola Means, South Carolina State College; L. H. Foster Sr., Virginia State College; W. A. Morgan, Bishop College.

Educational Buyers Association

President: Gerald D. Henderson, Vanderbilt University; vice president: Charles Hoff, University of Omaha; vice president: H. B. Bentsen, George Williams College; vice

president, Rev. J. Leo Sullivan, S. J., Holy Cross College; treasurer: H. W. Loman, Pennsylvania State College; executive secretary: Bert C. Ahrens.

Association of Superintendents of Buildings and Grounds of Universities and Colleges

President: Paul H. Elleman, Ohio State University; vice president: William F. Holman, University of Minnesota; secretary-treasurer: A. F. Gallistel, University of Wisconsin.

Executive Committee: Paul H. Elleman, Ohio State University; William F. Holman, University of Minnesota; A. F. Gallistel, University of Wisconsin; Henry E. Pearson, Indiana University; L. F. Seaton, University of Nebraska.

Convention: May 1948, University of Minnesota.

Association of College Unions

President: Douglas O. Woodruff, University of Utah; vice president: Vern L. Kretschmer, University of Illinois; secretary-treasurer: Edgar A. Whiting, Cornell University; editor: Porter Butts, University of Wisconsin.

Executive Committee: Douglas O. Woodruff, University of Utah; Vern L. Kretschmer, University of Illinois; Edgar A. Whiting, Cornell University; Porter Butts, University of Wisconsin; D. R. Matthews, University of Florida.

American College Public Relations Association

President: Horace Renegar, Tulane University; immediate past president: Harold K. Schellenger, Byer and Bowman Advertising Agency; vice presidents: W. Henry Johnston, Colgate University; Medora M. Mason, Fairmont State College; Douglas W. Miller, Syracuse University; Horace Cook, Indiana University; S. E. Serenius, Augustana College; secretary-treasurer: Max E. Hanum, Franklin and Marshall College.

Publications: editor: Francis Pray, Union College; business manager, Roy K. Wilson, National Education Association; co-editors, "Annual": Max Milbourn, University of Wichita; Bradford Ansley, Emory University.

1948 Convention Secretary: E. D. Whitley, University of Denver.

National Association of College Stores

President: A. W. Littlefield, Barnes and Noble, Inc., New York, N. Y.; vice president: John H. Jenkins, St. Louis University Book Stores, St. Louis; directors, 3 years: Ralph Stillwell, U.C.L.A. Associated Students, Los Angeles; George Racine, Student Book Exchange, Northwestern University, Evanston, Ill.; director, one year: John Richter, Tulane University Bookstore, New Orleans; manufacturers' representative: Norman Schneider, The Norsid Company, New York.

Members of board: Herbert Hays, Berea College Store, Berea, Ky.; Norman M. Gay, Boston University Book Stores, Boston; executive secretary: Russell Reynolds, 189 West Madison Street, Chicago.

ant dean of St. John's College, has been named president to succeed *Stringfellow Barr*, who resigned in December.

Dr. Edward R. Bartlett has resigned as dean of DePauw University to accept the presidency of Iliff School of Theology, Denver. He is expected to assume his new duties on August 1, succeeding the late president *Harry T. Morriss*.

John J. Tigert, president of the University of Florida since 1928, will retire September 1, according to a recent announcement.

John M. Sayles, president of New York State College for Teachers at Albany, is retiring because of ill health. He was recently stricken with a heart ailment, and his duties have been carried on by *Milton G. Nelson*, dean, who has been serving as acting president.

John A. Ross Jr., president, Clarkson College of Technology, plans to retire from active service on June 1 of this year, although his formal resignation does not become effective until he reaches 70 years of age on Oct. 1, 1948.

Arthur Fort Harman, president of Alabama College for Women at Montevallo, has indicated that he plans to retire on September 1. No announcement of his successor has yet been made.

Horace W. Hewlett, formerly on the public relations staff of the University of Denver, is now director of public relations at Amherst College.

William White has succeeded *James C. Toedtman* as director of publicity at Ohio Wesleyan University.

Albert F. Siepert, 63, vice president of Bradley University since 1913, died recently.

William B. Hatcher, president of Louisiana State University until his retirement in February of this year because of ill health, died recently at the age of 58. He had been president of the university since 1944.

Philip C. Nash, president of the University of Toledo, died recently at the age of 56. He had been president of the university since 1933.

Rebecca Reinhardt Craigbill, headmistress of St. Margaret's School at Tappahannock, Va., since 1943, died recently at the age of 49.

PRODUCT INFORMATION



Information on the materials, equipment and supplies with which an institution is built, operated and maintained and which are used in its various departments is of vital interest to those charged with the business operation. College and University Business recognizes the importance of this information and believes it has rendered a real service by grouping manufacturers' announcements and new product descriptions into a separate part of the magazine. We believe this is an infinitely better plan than to mix such information through the editorial pages where it becomes obscure and confusing.

You will find manufacturers' advertisements from pages 49 through 76. Pages 74-76 contain descriptions of new products and items of interest. Further details on any product advertised or described may be obtained without obligation and with a minimum of effort by use of the postcard below.

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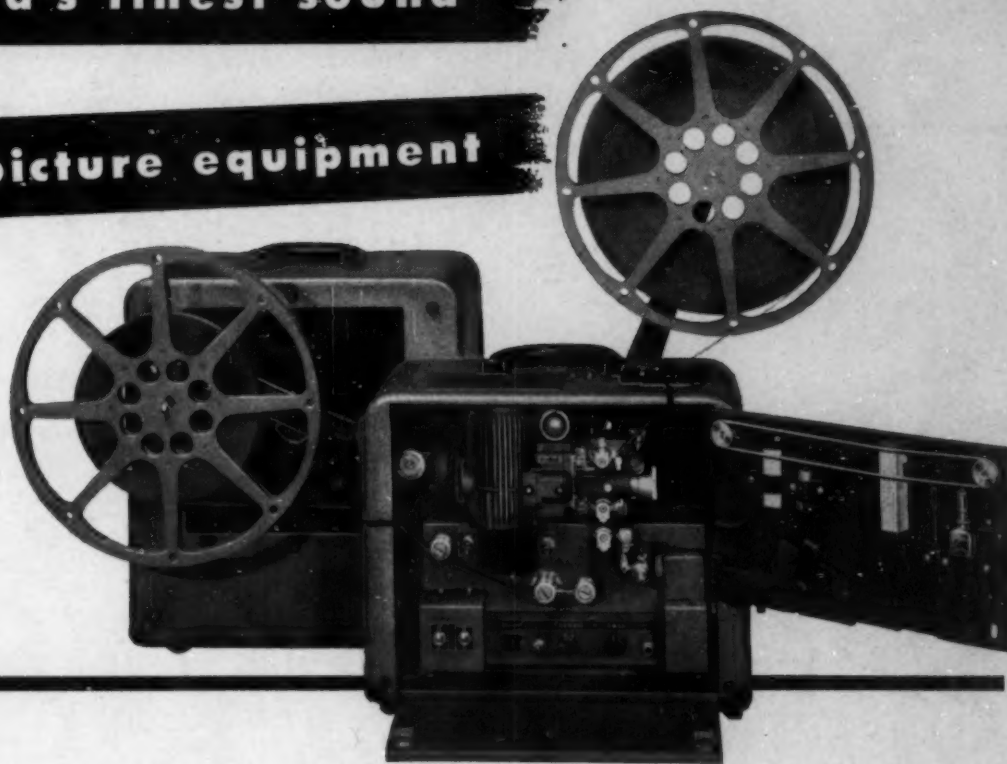
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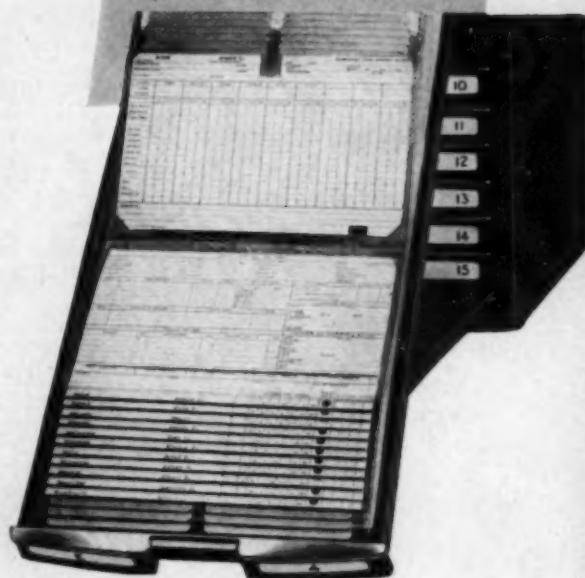
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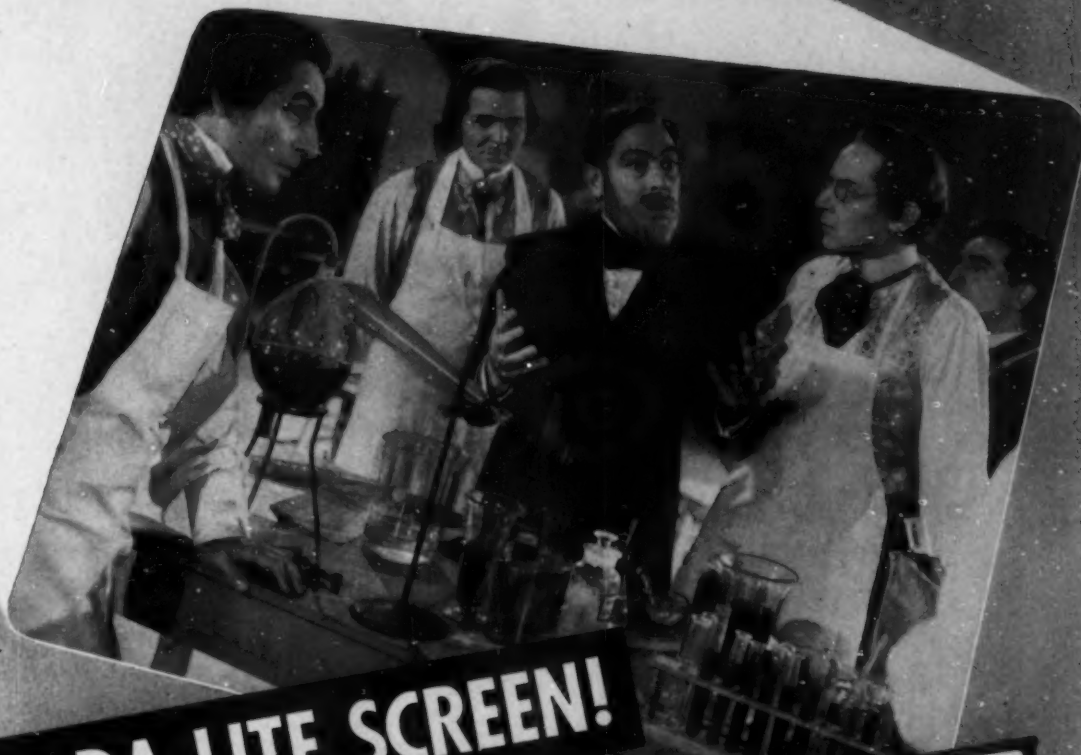
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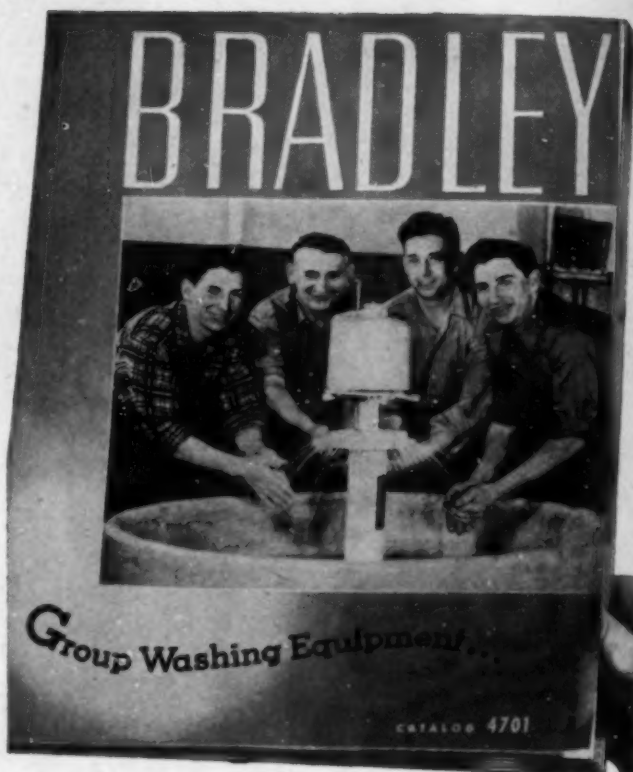
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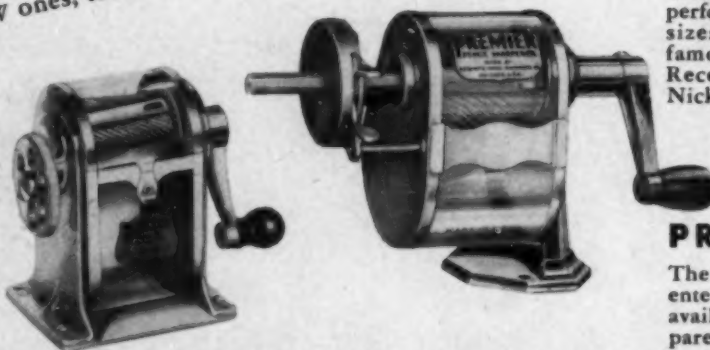


GIANT

Unsurpassed for reliable, all around performance. Revolving disk for all sizes pencils, crayons, etc., and famous deeply undercut cutters. Receptacle: Transparent or solid Nickered Steel.

DEXTER

Aristocrat of hand feed sharpeners with its fine double-bearing cutter suspension, the centering disk for various size pencils, and long-life cutters. Transparent receptacle.



PREMIER IS BACK

The Premier machine with its patented Automatic Feed will again be available by Fall. Receptacle: Transparent or solid Nickered Steel.

Automatic PENCIL SHARPENER

Division of Spengler Loomis
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Your Planning Problems

Hamilton offers a creative planning service for practical advice on your individual laboratory installation problems, and modern, functional equipment to fit your specifications. Let us make your planning problems easy. Write Department CUB-6-47 for complete information.

Equipment by Hamilton
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HAMILTON MANUFACTURING CO.

TWO RIVERS

WISCONSIN

For More Effective Weed Control with 2,4-D



WEED-NO-MORE 40

AMERICA'S NO. 1 WEED KILLER

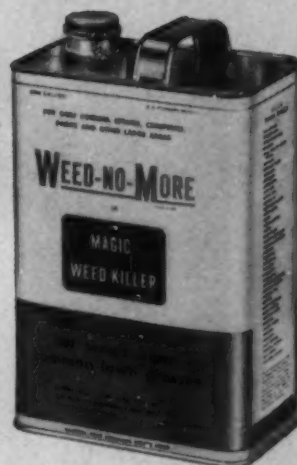
IT'S EFFECTIVE! The ester formulation of 2,4-D is recognized by authorities as being more effective over a wider range of weeds and conditions than other types of 2,4-D. Weed-No-More is the original butyl ester formulation of this selective weed killer.

IT'S ECONOMICAL! One gallon of Weed-No-More 40 concentrate makes 400 gallons of spray, enough to treat two acres. Weed-No-More's butyl ester formula—plus a special emulsifying agent—makes for better adherence to broadleaved weeds and faster absorption by the

weed plant, thus producing quicker, surer, and more effective killing action.

IT'S AVAILABLE NOW! Many of America's best-known golf courses, parks, cemeteries, and schools now use Weed-No-More 40 regularly for beautiful weed-free turf. Safe to use—easy to use—assures savings of hundreds of dollars (on many golf courses, thousands of dollars) compared with previously used methods of weed control.

For full information, phone your local dealer, or write any of the companies listed below.



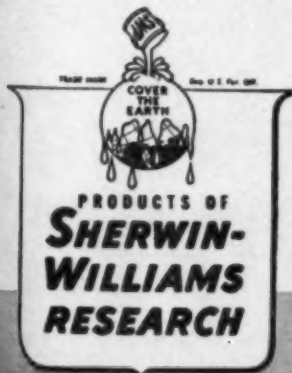
Available in 1-gallon and 5-gallon cans, 55-gallon drums

Write for Free Movies!

Informative 17-minute 16mm full-color sound movie presents actual proof of the remarkable killing action of Weed-No-More. Available for entertainment showings to committees, board meetings. Write Film Dept. D-6, 12th Floor Midland Bldg., Cleveland, Ohio.

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To help you until you can obtain delivery of spray equipment, Sherwin-Williams Research has developed a 50-gallon sprayer that can be easily built in your shop for under \$40. For free plans and specifications, write Dept. D-6, 12th Floor Midland Bldg., Cleveland, Ohio.



Acme White Lead & Color Works, Detroit • W. W. Lawrence & Co., Pittsburgh
The Lowe Brothers Co., Dayton • John Lucas & Co., Inc., Philadelphia • The Martin-Senour Co., Chicago
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City _____ State _____



Only Sloan *can say this:*



QUIET ZONE
HOSPITAL

**92.5% OF ALL HOSPITALS* ARE
SLOAN EQUIPPED—**

**61.3% OF ALL HOSPITALS ARE
EXCLUSIVELY SLOAN!**

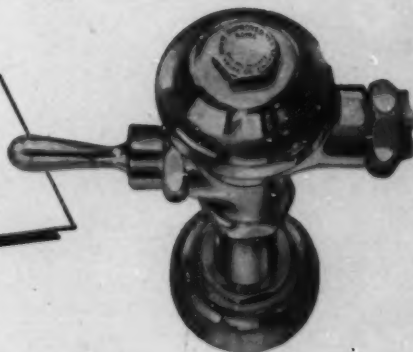
There are several reasons for Sloan's pre-eminence. For one thing, maintenance costs are reported as low as $\frac{1}{4}$ of 1c per valve *per year*. Then, too, Sloan Flush Valves save water; they protect public

health by preventing back syphonage; they can now be whisper quiet; they have unlimited life—yet cost no more. That is why more Sloan Flush Valves are sold than all other makes combined.

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* Hospitals of 100 beds or more.

sloan *Flush* valves





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Colby College

CARILLONIC BELLS

*A memorial that was
chosen by ear—*

In selecting this "Citation in the Sky" for Colby men who served and died, carillon installations in several cities were carefully studied. As happens again and again when comparison is made by listening, the choice for Lorimer Chapel was CARILLONIC BELLS.

This instrument should not be confused with amplified organ chimes nor with instruments requiring extensive tower construction; CARILLONIC BELLS is a modern carillon, producing genuine bell tones of pure, undistorted beauty. These tones, as they pour from the tower, are so clear and mellow that their brilliance must be heard to be realized. CARILLONIC BELLS can be played alone or with an organ; inside, or from the tower. Its notes are arranged chromatically, and its controls permit any degree of volume you wish. Ask us about the details; write Dept. COL-6.



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SUPER-SURFACER FOR POROUS FLOORS

CAR-NA-SEAL
TRADE MARK REG. U.S. PAT. OFF.
WEARS LIKE LEATHER

A "wear-like-leather" finish for wood, mastic, linoleum, cement and cork floors



IDEAL FOR GYM FLOORS

A semi-liquid sealer designed for floors subjected to severe usage. Made with 100% phenolic (bakelite type) resins. Used either as a complete finish by itself or as a perfect undercoat for wax finishes for wood, linoleum, concrete, trowelled mastic, cork, etc. Penetrates deeply, excludes moisture and helps preserve the floor. Applied with a lambs' wool applicator. No buffing required. Dries in a few hours with a very tough, leather-like finish.

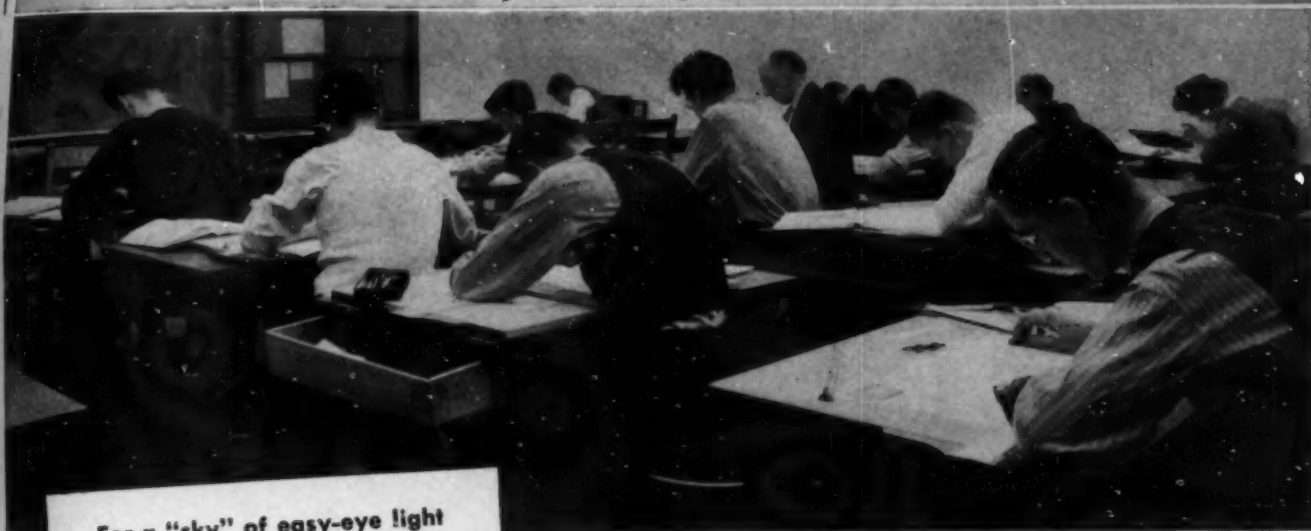
Car-Na-Seal is absolutely safe, provides a firm, non-slip footing at all times. It is ideal for gymnasium floors, as marks left by rubber soles are easily erased while court markings are protected. Widely used for refinishing desks and similar equipment. Approved by both Maple and Oak Flooring Associations. Meets U. S. Treasury, Navy and War Department Specifications for "Sealer C."

Write for Free Circular
CONTINENTAL CAR-NA-VAR CORP.
Floor Maintenance Specialists
1645 E. National Ave., Brazil, Ind.

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Over-ALL Lighting

by Wakefield



For a "sky" of easy-eye light
try THE WAKEFIELD STAR!

Combines the advantages of fluorescent and luminous indirect light. Pretested to give extra assurance of good lighting service. Plaskon reflector shield slides out like a drawer for easy cleaning. The ideal unit for Over-ALL lighting in many a college classroom, lecture hall, library and drafting room!

NEW WAKEFIELD STAR

Design
Patent Pending



Over-ALL...

In lighting
In sturdy construction
In ease of maintenance

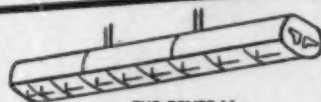
A new approach to classroom lighting for greater eyesight protection Wakefield's new Over-ALL Lighting provides smooth, pleasing, diffused light *over all*—the kind of light that eyes need for easy seeing, that makes for more attentive students, for easier teaching, and for cheerful, fresh, up-to-date rooms.

And we think you'll find this new system has it *over all* others when it comes to efficiency, seeing comfort, and protection against eyestrain fatigue. Because Wakefield Over-ALL lighting is based on definite lighting results.

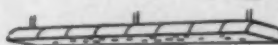
Ask your local Wakefield distributor to tell you more about this new Over-ALL lighting. Or write for new booklet. The F. W. Wakefield Brass Co., Vermilion, Ohio.

Wakefield

LIGHTING EQUIPMENT FOR OFFICE, SCHOOL AND DRAFTING ROOM



THE GENERAL



THE GRENADEIER



THE COMMODORE



THE DIPLOMAT

Beautiful



Safe

SCHOOL FLOORS CAN BE
SAFE THE LEGGE WAY

LEGGE
OF *Non-slip*

New York • Boston • St. Louis
Los Angeles • Washington, D. C.

-but DANGEROUS!

That big, gleaming floor . . . whether it's asphalt, tile, rubber, linoleum, terrazzo or wood . . . it's a joy to the eye. But is it safe? Does it shine at the expense of dangerous slip and fall accidents to your students in classrooms, gymnasiums, corridors and dining halls? And is it raising your insurance premiums with high accident rates?

BEAUTIFUL FLOORS CAN BE SAFE

The Legge System of Non-Slip Floor Maintenance provides floor beauty—with SAFETY—to prominent institutions everywhere. Through scientific methods, individually engineered for each problem, walking surfaces are kept spotless and sparkling, yet completely and lastingly Non-Slip.

The Legge System is no hit-or-miss plan. An experienced Legge floor engineer investigates your particular floor problems . . . floor conditions, area, traffic. He prescribes the special Legge preparations best suited to your needs . . . and is on hand to instruct your janitorial staff in their correct application.

PROVED IN SERVICE

The Legge System of Non-Slip Floor Maintenance has been *proved* in every type of institution and commercial building . . . in hospitals, schools, factories, offices, hotels . . . in fact wherever there's a walking surface. It has been tested and approved by leading laboratories, institutes and safety organizations . . . is endorsed and recommended by outstanding casualty insurance companies. It has demonstrated its ability to eliminate even extreme slip hazards: in one large hospital an average of 85 slip and fall accidents a year

was almost completely eliminated; another hospital reported a 95% reduction in slips and falls with the Legge System.

3-WAY PROTECTION PLUS ECONOMY

The Legge System gives you three-way floor protection . . . beauty, preservation, non-slip safety. You actually save precious dollars, too, for it eliminates the "hidden costs" of faulty floor maintenance. Users report lowered maintenance costs (labor and materials) up to 50%! Many have saved on insurance premiums, reduced with declining accident rates. "Obsolete" floors have been salvaged and rejuvenated by the Legge treatment.

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Legge preparations are not on sale anywhere, nor are they available as samples or trial offers. That's because the Legge System is a floor maintenance service tailor-made for each floor problem . . . is available through the Legge representatives throughout the country.

Find out how the Legge System can solve *your* floor safety problems. Send for our free booklet "Mr. Higby Learned About Floor Safety the Hard Way." Clip the coupon and send today!

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Walter G. Legge Co., Inc.
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360 N. Michigan Avenue, Chicago 1, Ill.

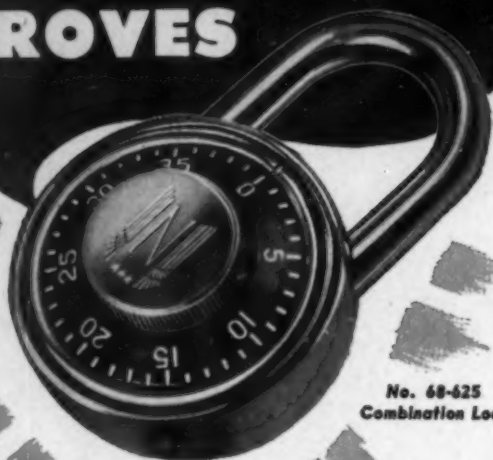
Gentlemen:

Please send me your free book "Mr. Higby Learned About Floor Safety the Hard Way."

Signed..... Title.....

Type of Floor..... Approx. Area..... sq. ft.

COMPARISON PROVES



No. 68-625
Combination Lock

NATIONAL LOCK IS THE FINEST ... yet costs no more!

Yes, we agree, that seeing is believing! If you're looking for a Combination Locker Lock that is sturdily built outside and in, attractively finished — and one that will withstand normal school abuses, yet give a long protective service, NATIONAL LOCK should be your choice. See for yourself — by placing a NATIONAL Combination Lock alongside any other make. We leave the decision up to you. Remember in spite of the difference in quality, weight and appearance, they cost no more than ordinary combination locks.

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- Extra heavy double weight steel case construction.
- Heavy, smooth operating, attractively finished dial.
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- Rugged construction — beautifully finished.

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Tablet ARM CHAIR Steel Frame

Tablet arm 7 ply veneer; curved seat and back 5 ply. Book compartment with open end. Finished in School Brown or Taupe baked enamel.



M4AA—18 year and up
M4A —13 to 17 yrs.
\$8.75 Each
\$8.55 Ea. Lots of 24

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Wisc. Factory,

AUDITORIUM CHAIR

Comfort-Fit Frame of selected hardwood; for heavy duty use. Seat 15" wide, 19 1/2" deep; 17 1/2" from floor. Walnut or Blond shade, stained and varnished.



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Sold 4 to a carton
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ALL STEEL ARTLINE DORMITORY BED

36" wide, x 76" long inside diam. Twisted link reinforced fabric spring. Head height 36", foot height 28". 2" casters. Baked-on Brown Enamel finish.



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4 DRAWER CHEST

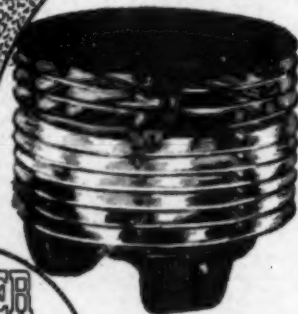
Arista All-Steel 4-Drawer Chest Grained Walnut Finish. Size: 44"x18"x30".



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\$39.50 Ea.
Lots 12 of more \$39.00
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ALL TOO OFTEN her well-prepared discussions and class sessions have little effect on her students.

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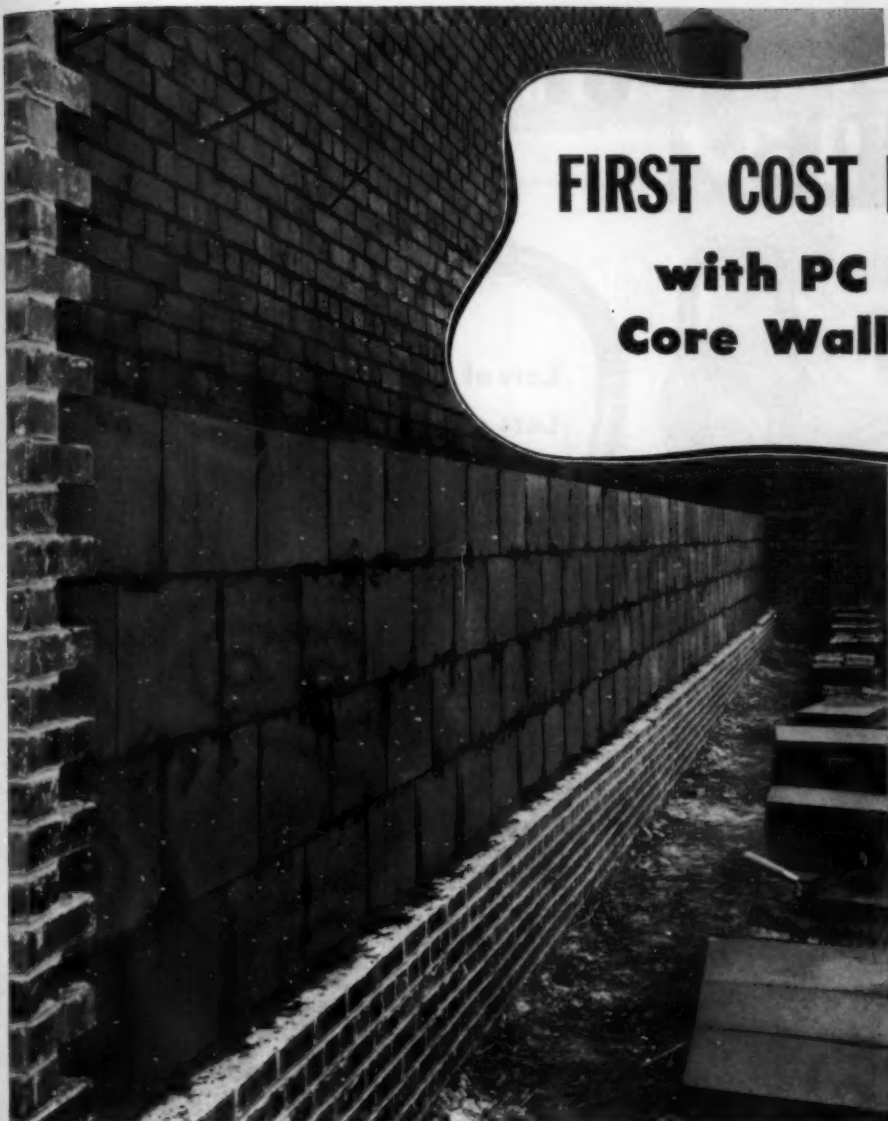
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FIRST COST IS LAST COST

with PC Foamglas Core Wall Insulation



BECAUSE—The big light blocks consist of millions of minute air cells, enclosed in pure glass.

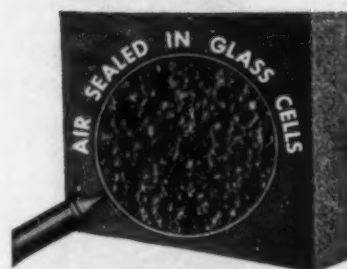
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Stainless steel RD-2 withstands years of abuse and will not rust or corrode. Mechanism is sturdy and simple.

RP-5 is solid brass and is designed for those who prefer the knob-pointer method to the rotating dial for setting combinations.

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RP-5

RD-2

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Lots of 25, each..... **\$2⁶⁵**
Lots of 6, ea. \$2.85

2E-135 — FLEXIBLE ARM — BRONZE FINISH. Maximum height 12½ inches, extends to 17 inches. Metal shade 6½ inches. Wired with turn-button socket, 6 ft. of rubber covered cord, unbreakable rubber plug. 6 in carton, no less sold.

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MODERN LAWNMOWER SHARPENER



ALL Your Mowers Precision Ground With a Modern Mower Sharpener

ANY Mower Sharpened EASILY (5-inch Edger or 36-inch Power Mower) in 10-20 minutes with a MODERN LAWN MOWER SHARPENER. NO DISMANTLING . . . Handles, Rollers, Wheels and Motors need Not be removed to sharpen ANY MOWER. No Hand FILING needed! . . . MODERN precision grinds to the very ends of BOTH left or right reel blades. SAME brackets hold bottom knife for scissor-sharp MATCH! No EXTRA ATTACHMENTS NEEDED! Order Now! ONLY \$241.50 (less motor) F.O.B. Pasadena. (½ or ¼ H.P. single phase motor recommended.)

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Built to wear longer, these superior, non-slippery floor treatments provide an extra hard, non-tacky finish that will not permit dirt and grime to be ground into the surface... instead the dirt "floats" on the surface until removed by sweeping. And you don't have to worry about tracking-off either. Car-Na-Lac and Continental "18" are specially processed to adhere to the floor... become "welded" to the floor and prevent tracking-off. Thus each application

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Shrewd maintenance men everywhere are looking to Car-Na-Lac and Continental "18" for the outstanding performance they give in office buildings, hotels, hospitals, schools and other buildings. Best try Car-Na-Lac or Continental "18" yourself... they're both made "hard to be good"!

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Specialists in Heavy Duty Floor Treatments



CAR-NA-LAC
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Both Car-Na-Lac and Continental "18" are approved by the Rubber Manufacturers Association for rubber floors.

CONTINENTAL "18"
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Acts like a lacquer made of wax. Applied with the usual wax applicator. Levels out as it dries, resulting in a uniform, streakless, lacquer-like gloss. Self-polishing... dries in 15 to 20 minutes. Car-Na-Lac floor treatment has at least twice the wearing qualities of ordinary water waxes and is waterproof, non-slippery. Adapted for all floors except unsealed "raw" wood. Meets Proposed Federal Specifications for Item 9, Type I.

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SAFE ON ALL FLOORS

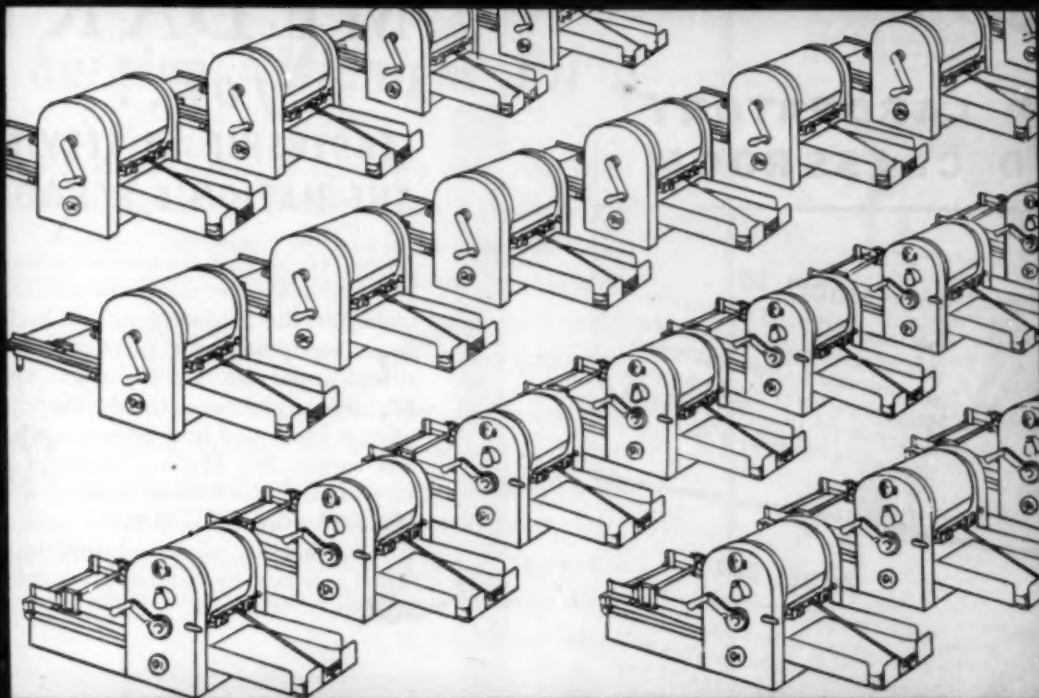


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THE NATION'S SCHOOLS**

74 years in serving the nation's schools has given Medart unquestioned leadership in the field of gym and locker room equipment and physical educational apparatus. During these years Medart has pioneered the development of new ideas and improvement which has earned for Medart products the slogan "the standard of comparison." Medart leadership and experience are your assurance of sound investment when you buy equipment made by... Medart of St. Louis.



Medart Makes The Following Equipment...

**Steel Lockers • Steel Lockerobes • Gymnasium Apparatus • Telescopic Gym Seats
Basketball Backstops • Basketball Scoreboards • and the new Acromat-Trampolin**



FRED M. MEDART
MANUFACTURING CO.
3535 DE KALB ST., ST. LOUIS 18, MO.

desks

STYLED BY SIMMONS

for burning "Midnight Oil"!

We've made a study of desks. Big ones, little ones ... all kinds. And one thing is sure! A desk in a dorm is a mighty important piece of furniture. That's one reason why we suggest you see the Simmons line of bright, colorful all-metal desks before you select your new equipment.

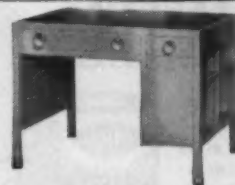
You see, Simmons is famous not only for quality in materials and workmanship, but we know how to design the handsome, durable furniture students really want ... at prices you want to pay. It's pretty hard to beat this combination! Why not get the full story now from your Simmons dealer ... or write direct to any Simmons office.



Desk F-142-6: Height 31½ in.; Top 34½ x 19 in. Modern table type with square tubular legs and large drawer pulls.



Desk F-142-10: Student's single Model. Height 31½ in.; Top 34½ x 21 in. Large pulls, open book shelf at right end.



Double Desk F-142-12: For two students. Has two open book shelves at end, two drawers on each side. Height 31½ in.; Top 42 x 32 in.



SIMMONS COMPANY

DORMITORY DIVISION

Display Rooms

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Kneehole Desk F-142-9 (Shown in room scene above). Has open book shelves at each end, 3 drawers with large pulls. Height: 31½ in.; Top 44½ x 21 in.

IS COLOR SAFE IN SCHOOLS?

In Texas schools this light-reflective paint gives important aid to

startling educational growth

Send today for literature describing the improvement in educational growth and improved well-being that comes from modernizing schoolrooms according to the "Texas Plan" as developed in the Mexia, Texas, Public Schools under the direction of Dr. D. B. Harmon.

LUMINALL

Luminall, the light-reflective paint for interiors, is one of the important factors in securing these benefits for your students.



your school can do it, too!

NATIONAL CHEMICAL & MFG. CO.
3622 South May Street, Dept. N
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Your chapel may have a genuine Cathedral Chime for as little as \$518.00



IT'S TRUE! . . . The installation of a Maas Cathedral Chime for use with any organ is no impractical dream. The accumulated know-how of long experience has made it possible for the Maas Company to offer you these Chimes, reasonably priced, without sacrifice of quality.

Indeed, the quality of Maas Chimes has been improved steadily and consistently until today there is no finer system available. . . . The perfectly tuned, pure-toned Maas Cathedral Chimes will add immeasurably to your worship services. . . .

Also available—for less than a thousand dollars—are the Maas Amplified Tower Carillons that enable you to flood the community with the inspiration of sacred music. These are actually "dual-purpose" chimes, that combine the inside organ cathedral chimes and the outside carillon.

Maas dealers are eager to show you how Maas Chimes can be installed to best advantage and most economically for you. Write for information and the name of our dealer near you. (Specify type of organ you have.)

MAAS ORGAN COMPANY

Room 28, 3015 Casitas Ave., Los Angeles 26, Calif.

Is YOUR Gym Floor
**FAST
AND
SAFE?**



DOLCOROCK floor surface finish is like an extra layer of glossy, quartz-like flooring, attractive to spectators and welcomed by contestants. It lends a feeling of additional speed to the game . . . permits quick starts and sudden stops, yet its "built-in" safety quotient tends to reduce slips and consequent injuries.

DOLCOROCK is standard for many gymnasium floors throughout the country—and for shower room floors because of its moisture-resistant and long-wearing qualities.

Easy to apply and maintain; easy too on your floor maintenance budget.

Get the complete facts by writing for the booklet "Floor Maintenance"

The C. B. DOLGE CO.
WESTPORT, CONNECTICUT

DOLCOROCK

SERVICE

Between editorial material and advertising pages in this and every issue—there's a detachable, postage pre-paid card . . . to help you get product information on one or a dozen items with a minimum of effort and time. As you read the advertising pages and the descriptions in the "What's New" section, check the items that interest you . . . use the card. Sign it, mail it. The manufacturer of each item checked will be asked to send you complete details, no charge, no obligation.

COLLEGE and UNIVERSITY BUSINESS

New Brilliance Extra Sharpness

from your Filmstrips and 2" x 2" Slides

with **THE NEW AMPRO
DUAL PURPOSE PROJECTOR**



Amproslide
Model "30-D"

You will notice a remarkable improvement in brilliance and clarity in both your filmstrips and slides when shown on this new Ampro Model "30-D" Projector. You will definitely see that black and whites are crisper, more "contrasty"... colors are richer and truer. The reason!...a basically improved condenser system—with a more efficient design that assures *maximum utilization of illumination* from 300-watt lamp.

Plus these added features:

1. Simplified Threading

No aperture pressure plates... patented curved gate simplifies operation, prolongs life of film, keeps film position accurately on optical axis... threading is quick and simple.

2. Simpler Operation

Dual sprocket design allows smooth movement of film in both FORWARD and REVERSE... "hair-line focus" lens assures instant, finger-tip positive focusing... simple framing control and quick, smooth, tilting mechanism... condenser system in one unit, easily removable and replaceable for cleaning... for slides, patented self-centering slide carrier positions slides accurately on optical axis... lift-off case with projector mounted on base, ready for instant use.

3. Split-Second Interchangeability

Really TWO projectors in ONE—can be instantly changed from filmstrips to slides, and back, without installing or removing additional units. Has separate apertures for slides and filmstrips located in correct position on optical axis for maximum light efficiency. Many other important features. For full details, specifications and prices, fill out and mail coupon TODAY!



Also Brighter, Sharper 2" x 2" Slide Projection—with new Ampro Model "30-A"

Has improved Condenser design that delivers maximum illumination from 300-watt lamp... self centering slide carrier positions each slide accurately on optical axis... "hair-line focus" lens with instant fingertip positive focusing... and many other features.

AMPRO

8mm Silent • 16mm Silent
16mm Sound-on-Film • Slide Projectors
16mm Arc Projectors

A General Precision Equipment Corporation Subsidiary

AMPRO CORPORATION, 2835 N. Western Ave., Chicago 18, Ill.

Please send me full details on the new Ampro Dual Purpose Model "30-D" Slide Projector. I am also interested in:

☐ Ampro Model "30-A" Slide Projector.
☐ 16mm. Amprosound Projector. ☐ Ampro 8mm. Silent Projector

Name _____

Address _____

City _____ State _____

WHAT'S NEW.....

The easiest way to get more information about the new products described in this section is to use the postage paid card opposite page 48. Just circle the key number on the card which corresponds with the number in the headline of each item. COLLEGE and UNIVERSITY BUSSINESS will send your request to the manufacturer.

Insecticide Sprayer

Covers Large Areas Effectively



Not only because of its effectiveness in the spray method of applying insecticides but because of the speed with which it covers large areas, superintendents of buildings and grounds of colleges and universities are expected to be particularly interested in the new Lawrence Aero-Mist Sprayer. By means of

a fan operating at 3600 r.p.m., the sprayer shoots a practically invisible mist of concentrate to affected areas at a speed of 150 miles an hour. The highest trees as well as field crops are said to be sprayed easily and thoroughly.

Light and compact, the sprayer can be mounted on a $\frac{3}{4}$ ton platform truck. Operation can be handled readily by one man, according to the manufacturer, for all controls are within easy range of the operator's seat. At slight pressure of the operator's foot, the sprayer can complete a circle, assuring complete coverage in every direction without troublesome backing and turning of the truck.

Other features include an aerodynamically designed, directional air nozzle, Benway spray jets that inject insecticide concentrates into high speed air currents, a Novo water cooled engine and a 47 gallon tank sufficient for three or four hours' spraying.—*Lawrence Aero-Mist Sprayer Company, Department A, 59 Federal Street, Greenfield, Mass.*

Perspective Drawing Instrument

Described in Illustrated Folder

Those who use or draw perspectives will be interested in the Pomeroy Stereograph Company's new folder on the Pomeroy Stereograph Perspective Drawing Instrument. The folder describes the complete operation of the machine and maintains that, without vanishing points, grids, outriggings or other cumbersome accessories, it produces perspectives to hairline accuracy in approximately half the time required by other methods and enables the object to be viewed from any desired degree or angle and from any distance. Perspectives of machine assemblies, architectural renderings and a piano are shown to illustrate the ease with which the machine draws horizontal and

CUB 304

vertical ellipses, contours and straight line projections. Included, too, is an illustration showing the steps by which a complete rendered bird's-eye view of a factory in perspective is completed from standard plan elevation drawings.—*Pomeroy Stereograph Company, Inc., 309 Ferguson Building, Cleveland 14, Ohio.*

Meat Tenderizer

Available in New Model

With the addition of Model 700, "Tendersteak Delicator," the U. S. Slicing Machine Company now offers two models in meat tenderizing machines. The new Delicator tenderizes tough cuts of meat and "knits" together combinations of pork, lamb, beef and veal into "steaklets" "mock chicken tenderettes" and other specialties. Features of the new unit include an automatic safety cut-off switch which operates when the cover is raised; a hexagon blade shaft that keeps blades from slipping under strain, and three point suspension feet for uneven counters.—*U. S. Slicing Machine Company, La Porte, Ind.*



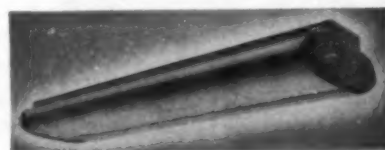
CUB 306

Lighting Unit

Offers Efficiency in Maintenance, Operation

The new Holoflux lighting unit, which is said to assure marked economies in maintenance and operation as well as to

add distinction to modern interiors, is described in an available folder. The true efficiency of a lighting unit consists of a number of factors which, put together, mean ease of seeing and comfort in working, says the manufacturer in pointing with pride to the efficient manner in which the fixture handles the light from fluorescent lamps. Designed to take either two or three lamps, these units can be installed as single fixtures or ganged together in extended lengths; they can be mounted directly on the ceiling or suspended



CUB 307

on stems. Because the surface attached Holoflux is fully enclosed, it cannot be affected by deterioration and is protected against the collection of dirt, says the folder.

The curved type of Controlens directs a strong, intensive pattern of light downward, ensuring a high level of illumination but with a noticeable absence of glare. The upper refracting member spreads the light across the ceiling to provide a luminous background for the lighting system. The resulting light is said to be unusually comfortable to work by.—*Holophane Company, Inc., 342 Madison Avenue, New York 17, N. Y.*

Fabrics Flameproofed

CUB 308

By New Organic Compound

A new organic compound that not only flameproofs fabrics, such as draperies and slip covers, but is said to give them permanent protection and to increase their tensile strength is announced by Eronel Industries. Known as Antoxol, this new compound will not alter the color, appearance, sheen or feel of the most delicate fabrics, according to the manufacturer. In addition to being nontoxic and nonirritating, Antoxol does not powder off because of its balsamic resinous nature and thus assures permanent protection. As a result, treated fabrics can be dry cleaned repeatedly, the manufacturer points out.—*Eronel Industries, 5714 West Pico Boulevard, Los Angeles, Calif.*



Projection, Utility Table

CUB 307

Adaptable for Many Uses on Campus

The new all steel projection and general utility table available from De Vry is expected to be of interest to colleges and universities because it is adaptable for movie or film strip projector stand, for public address work or for use in the cafeteria, the commerce department and the home economics and science laboratories. Fabricated of heavy 16 and 18 gauge steel and finished in baked olive green enamel, the table's dimensions are 18¼ inches wide, 24¾ inches long and 35½ inches high. It comes complete with heavy duty 2½ inch steel Bassick casters, an easy sliding drawer and a turned down flange for extra storage space.—*De Vry Corporation, 1111 Armitage Avenue, Chicago 14, Ill.*



Office Machines

CUB 310

"Creep No More" With This Device

Office machines' bad habit of creeping away from the operator can be corrected by installation of a simple device developed by the Underwood Corporation.



This device, known as Vibration Control Blocks, consists of small squares of aluminum mounted on special vibration absorbing felt so treated that it cannot slip, according to the manufacturer. Placed under the feet of office machines, these blocks absorb vibration and hold the machines in place.—*Underwood Corporation, 1 Park Avenue, New York 16, N. Y.*

Industrial Control Devices

CUB 311

Discussed in New Catalog

Accurate and dependable industrial control devices and safeguards are described in the new Catalog No. 8302, "Industrial Control Devices," published by the Brown Instrument Company, a division of the Minneapolis-Honeywell Regulator Company. The catalog includes information on Electric and Pneumatic Automatic Control Systems, including the Con-Tac-Tor Mercury Switches, and a summary of Brown Instruments for measurement and control, such as pyrometers, flow meters, thermometers, pressure and vacuum gauges.—*The Brown Instrument Company, Wayne and Roberts Avenues, Philadelphia 44, Pa.*

Water Sprinkler

CUB 312

Simulates Natural Rainfall

Grass will not suffer during dry spells on the campus provided with the new Acme Shower-Queen. This lawn and garden sprinkler has an oscillating shower bar that operates in a trajectory arc of 150 degrees, delivering water in the amount of 300 gallons an hour over an area of 50 by 65 feet. Moreover, all water is thrown into the air, broken up into droplets and, in a rain-like manner, absorbs oxygen, it is reported. Rivulets and puddles are prevented and the lawn benefits as from the gentle, thorough penetration of natural rain.

By means of a simple, thumbscrew adjustment, any proportionate rectangular area can be covered; when placed next to a building, the shower irrigates the area from the building outward; placed along the sidewalk edge, the shower does not interfere with persons passing by. Various sized areas can be covered merely by reducing the pressure of the water at the faucet.

Of all metal construction, the Shower-Queen is non-rusting; the centrifugal, hydraulic type of motor is noiseless in operation, and bearings are water lubricated, says the manufacturer. Overall dimensions are 6½ inches wide, 14½ inches long and 6¼ inches high and it operates

on any pressure from 20 to 100 or more pounds, domestic or municipal system.—*Acme Sprinkler Company, 412 Walbridge Street, Kalamazoo 3, Mich.*

Floor Machine

Is Versatile in Character



The Holt Flat Top, a new model of advanced design, is announced by the Holt Manufacturing Company, one of the nation's leading makers of floor maintenance equipment for more than a quarter of a century. Its unusually low height, resulting from a revolutionary motor construction, is said to lead to better distribution of motor weight over the brush, thus preventing tipping, allowing more efficient brush operation and permitting use

under furniture and beds. Because it accommodates all of the 11 attachments, it is possible for the operator to do almost any floor maintenance job with this one machine, even to shampoo rugs and carpets.

The Holt 1947 catalog describes the Flat Top and other floor maintenance machines and accessory equipment. Too, in the catalog is the popular "Helpful Hints by Holt" section, including the Stain Removal Chart.—*Holt Manufacturing Company, 651-681 Twentieth Street, Oakland 12, Calif.*

New Catalog Sheets

For Office Reference File

Purchasing agents will be interested in knowing of the availability of new catalog sheets describing Legion stainless steel and bi-metal kitchen utensils and table and buffet service. In addition to offering an up to date presentation of these products, the sheets have the standard

CUB 313

3 hole punching along the left hand margins and can be readily inserted in the catalog file.—*Legion Utensil Company, Fortieth Avenue and Twenty-First Street, Long Island City 1, N. Y.*

Radios, Electronic Equipment

CUB 315

Presented in New Catalog Supplement

A new catalog of radios and electronic equipment has been prepared by the Concord Radio Corporation. Designated as "Supplement No. 447," it includes radios, amplifiers, testers and parts. Because of its detailed listings, it is expected to be a valuable addition to the purchasing agent's reference file.—*Concord Radio Corporation, 901 Jackson Boulevard or 265 Peachtree Street, Atlanta, Ga.*

Electronics Enters Dishwashing

CUB 316

To Control Solution Concentration

Electronics enters the dishwashing field with the announcement of the new Wyandotte Electronic Solution Controller which is designed for maintaining an efficient oper-



ating solution strength in dishwashing machines. Housed in stainless steel, it consists of a cleaning material compartment, a sturdy, one piece feeder valve, a self contained dip cell and a positive, nonmoving electronic unit constructed of standard radio parts. Outside dimensions are 6 by 6 by 18 inches.

The unit measures solution concentration directly. Operational failure through possible gumming up of the washing compound or sticking of valves is avoided. Red and green lights show that the feeder is operating to maintain a predetermined concentration of washing compound in the washing machine solution tank. The Wyandotte Electronic Solution Controller is adaptable to nearly every spray type of dishwashing machine, says the manufacturer.—*Wyandotte Chemicals Corporation, Wyandotte, Mich.*

WANT ADVERTISEMENTS

The rates for want advertisements are: 10 cents a word; minimum charge, \$2.50.

Address replies to COLLEGE AND UNIVERSITY BUSINESS, 919 N. Michigan Avenue, Chicago 11, Ill.

POSITIONS WANTED

College Administrative Officer—Twenty years' successful experience in budget control, purchasing and physical plant operation, maintenance and development; thoroughly familiar with operation and needs of academic departments and capable of coordinating all phases of college administration; available July 1. Write Box CW14, COLLEGE AND UNIVERSITY BUSINESS.

Business Officer or Chief Accountant—Thirteen years' broad experience covering accounting,

management, operations, procedure, and field supervision including seven years accountant, large Land Grant College; three years' graduate training beyond Masters'; married, 44. Write Box CW18, COLLEGE AND UNIVERSITY BUSINESS.

College Executive—Do you need a top-flight administrator who gets along well with people and accomplishes results? Experienced in public, private universities and national organizations; started as assistant to president, later promoted to auditor, accounting and budget officer, business manager (with supervision of plant operation, investments, veteran problems and auxiliary enterprises); excellent report

writer; reasonable salary. Write Box CW19, COLLEGE AND UNIVERSITY BUSINESS.

POSITIONS OPEN

Superintendent of Buildings and Grounds—University of Oregon offers challenging opportunity for competent and properly qualified superintendent of buildings and grounds; please indicate age, experience, salary required, when available. Address inquiries to J. O. Lindstrom, Business Manager, University of Oregon, Eugene, Ore.

WOOD *Unmatched for Ease in Keeping Clean!*



Wood is characterized by enduring strength, functional adaptability, and comparative lightness. In these qualities alone, we find in wood a superior material for Carrom furniture.

However, Carrom Wood Furniture offers much more . . . in qualities essential to good institutional service. Its smooth finish, which penetrates deeply into the pores of the wood, is easy to clean and keep clean. Superior craftsmanship and basically simple, clean-cut design combine to eliminate cracks, crannies and crevices which otherwise collect dust and dirt. All joints are smoothly and permanently fitted . . . for good

construction, good appearance and good housekeeping.

Still more is yours in Carrom-built furniture. Here is a product made exclusively for institutional use. By the extra care employed in selecting and seasoning hardwoods, forming posts, legs, bed stretchers and other vital parts from solid stock and fitting joints securely, Carrom gives you institutional furniture unmatched for serviceability.

Carrom Fine Wood Furniture, made by craftsmen who "build for the decades," will meet your every requirement.

CARROM INDUSTRIES, INC • LUDINGTON, MICHIGAN

CARROM FURNITURE CRAFTSMEN

Build **FOR THE DECADES...**



LONG LASTING FINISH

Carrom Wood Furniture receives a hard, tough finish that penetrates into the pores of the wood, becoming a part of the wood itself. It will not chip off nor flake on impact with other objects and even a relatively deep scratch can be repaired and effaced. The original beauty of Wood is emphasized and retained to the highest degree.

CARROM



**WOOD FURNITURE FOR
DORMITORY SERVICE**



For the most discerning

What words can't do, the camera almost does... but only taste will tell you how meltingly delicious and succulent green beans can be... when they are packed the Sexton way. Like all Sexton vegetables they are expertly selected from the finest varieties, and packed with full vitamin content for the most discerning taste.



Good food for pleased guests



Sexton
Quality Foods

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